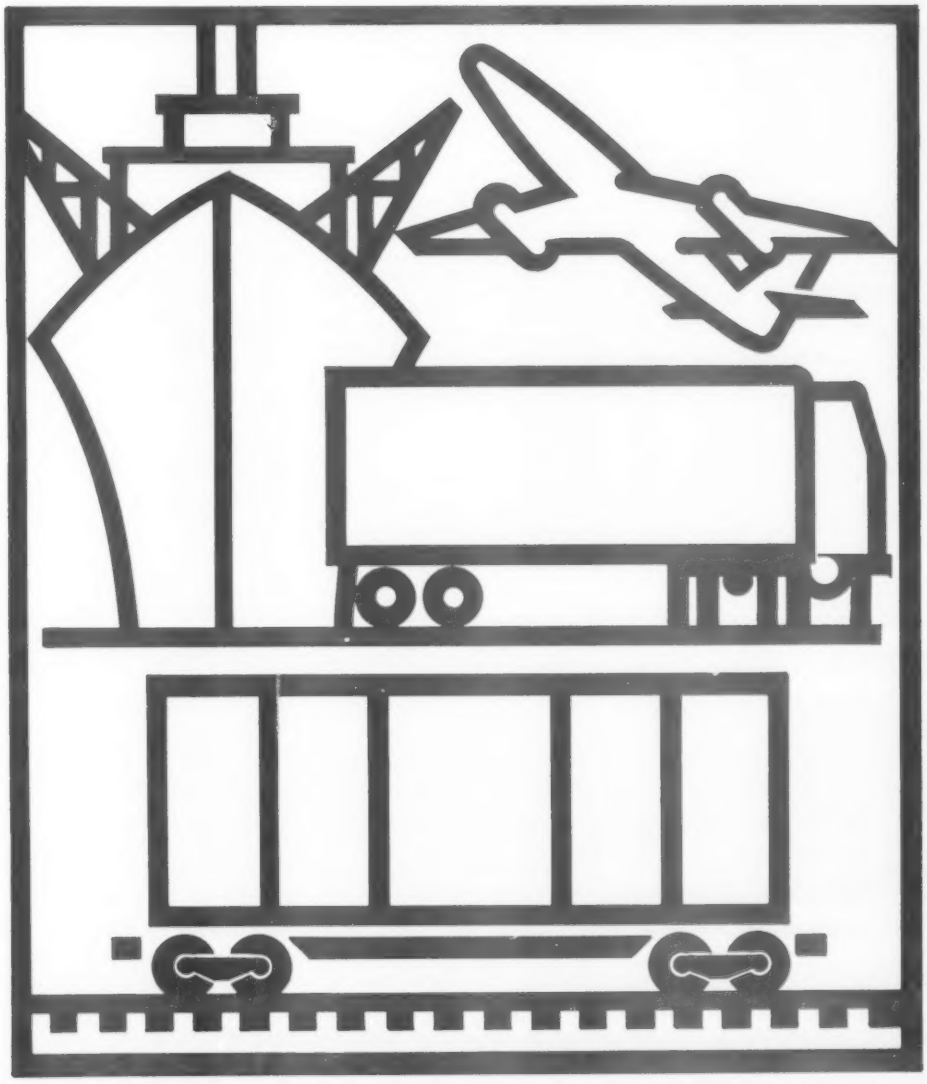
# Foreign Agriculture

April 1979

Foreign
Agricultural
Service
U.S. DEPARTMENT
OF AGRICULTURE



2 Taiwan Ups Feedgrain Imports

5 Effects of Food Aid

9 Billion-Dollar U.S. Farm Markets: Japan, Netherlands, USSR, Canada, West Germany, South Korea, United Kingdom, Italy

14 World Food Prices

24 Turkey's Livestock Industry

26 Japan Modifies Beef Import Controls

# Taiwan Ups Feedgrain Imports for Expanding Livestock Industry

**By Pitamber Devgon and Cheng-Mo Lynn**

*Top: Notching the ear of a young pig in Taiwan. Bottom: A chick farm in southern Taiwan with modern self-feeding equipment.*

Taiwan's imports of coarse grains have skyrocketed nearly 17 times in volume and 30 times in value in just 10 years, fueled by increased feed needs for the market's growing swine and poultry operations. Imports for 1978/79 will be 3.2 million metric tons, up 14 percent from 2.8 million in 1977/78.

The real turning point in imports, however, dates back to 1972, when many of the major modernization and development projects in Taiwan's livestock industry, including modern feedmills, came on stream.

Competition among private enterprises and Government-backed financial incentives for imports of machinery, equipment, and raw materials for feed mills, hog and poultry producers and processors played an equally important role.

Finally, 1972 was also the year when the authorities in Taiwan were able to reach an understanding with their counterparts in Japan on new sanitation and quality specifications for frozen pork exports from Taiwan.

Demand for imported coarse grains in 1972 jumped 60 percent from the 1971 level and almost doubled from the annual average of 895,000 tons during the previous 3 years to over 1.76 million tons. Corn imports in 1972 rose to 1.32 million tons compared with 554,000 tons in 1971 and the 602,000-ton record of 1970.

The feed industry has continued to expand steadily since 1972. Today, more than 128 feedmills and an untold number of backyard feed mixing plants (estimated by some industry sources at between 2,500-3,000) dot the rural landscape in the western part of Taiwan.

Much of this upsurge results from Taiwan's shift toward diets with more meat, milk, eggs, fruits, and vegetables.

This trend is expected to continue, along with the pace of economic development that has seen per capita incomes rise an average of 7 percent each year for the past 12 years. Because only a quarter of Taiwan's land is arable, well over 90 percent of the grains required by the feed industry must be imported.

Prior to 1973, the U.S. share of Taiwan's feedgrain imports was insignificant. Since then, however, a combination of factors, including better understanding of the U.S. feedgrains marketing system, the reliability of the United States as a major producer and exporter, and Taiwan's policy of encouraging imports of bulk agricultural commodities from the United States to balance trade, have contributed to a steady growth in U.S. coarse grain and soybean exports to Taiwan.

After the formation of the Taiwan Corn Importers Joint Committee in 1976, the number of usual corn supply sources for Taiwan were reduced from more than 10 to less than 5.

Taiwan has established long-term supply arrangements with the United States and South Africa and may purchase some corn in 1979/80 from Thailand and Argentina.

A 3-year agreement with South Africa has provided for the supply of 450,000 tons of corn annually through 1978 and this arrangement will be extended for another 3 years, possi-

**Mr. Devgon, an agricultural economist for the Grain and Feed Division, Commodity Programs, FAS, until October 1978 was Acting U.S. Agricultural Attaché in Taipei. Mr. Lynn is Director of the U.S. Feed Grains Council, Taiwan.**

bly calling for an upward revision to about 500,000 tons of annual corn shipments. The U.S. share of the corn market has risen from 37 percent in 1976 to 41 percent in 1977 and to more than 75 percent in 1978.

In the past 4 years, Taiwan has also started importing increasing quantities of sorghum for livestock feeding from Argentina, Australia, Thailand, and, starting in 1978, from the United States.

The U.S. Feed Grains Council, in cooperation with the Foreign Agricultural Service, sponsored seminars and followup technical assistance programs in 1978 to create better understanding of the U.S. yellow sorghum feeding values.

Sorghum imports from the United States during the first 6 months of 1978 totaled over 60,000 tons, compared with previous imports of about 15,000 tons in 1973, and 6,600 tons in 1972.

Decisions concerning grain sorghum imports are made by the individual millers and other end-users rather than any central associations. Purchasing is based primarily on price ratio with respect to corn and price of grain sorghum from different origins.

The poultry and livestock feed manufacturing industry in Taiwan dates back to about 1962, when private oilseed crushing and flour milling companies entered into mixed feed manufacturing as a sideline.

By 1970, however, the Taiwan Feed Industry Association had 95 members. Of these, only two mills had the capacity to produce 10,000 tons of mixed feed per month and actual monthly mixed feed production was under 80,000 tons against an installed capacity of 131,000 tons.

Times have changed dramatically since 1970; most of the smaller and older feedmills have been converted into modern operations. Many feed manufacturers have expanded their operations to include hog and poultry production. The number of feed companies has risen to 128 and two of them are now producing 30,000 tons of feed per month.

Taiwan produces an estimated 4.5 million tons of mixed feeds annually. Of this amount, about 55 percent is for the hog sector and the balance for poultry (including ducks).

For many years Taiwan's swine sector, particularly the large operations, has been regarded as one of the more sophisticated and progressive in the Far East. Farms producing 50,000 market hogs per year are not uncommon and there are several producing more than 100,000 hogs a year.

The practice of raising and breeding local swine species has changed in recent years to one of raising and crossbreeding imported species. Landrace, Yorkshire, Duroc, and three-way cross breeds are very popular. One-third of the sows in Taiwan are bred by means of artificial insemination and domestic production of frozen semen has also become feasible.

Establishment of purebred nucleus herds has also been accomplished for the Yorkshire, Landrace, Duroc, and Hampshire breeds. The genetic base is now broad enough to allow improvements within the breed.

Because of improved economic activity and availability of lower priced feedgrains, hog production increased 7 percent in 1977 and about the same in 1978.

However, increased production costs and reduced profit margins have compelled producers to adopt newer and more cost-effective production methods. At the same time, the situation also has led to the creation of larger units at the expense of small ones.

Pork is the most important meat consumed in Taiwan, with per capita consumption around 25 kilograms (carcass weight) in 1977 (67 percent of total meat intake).

Of the 6.2 million hogs produced in 1978, an estimated 5.643 million were slaughtered for domestic consumption and carcasses or cuts of about 557,000 hogs were exported, primarily to Japan.

Domestic demand for hog and poultry products is keeping pace with the increase in per capita income. Consumption of meat rose 10 percent in 1977 and of eggs 16 percent. Prospects for the next few years point to somewhat modest, but further, annual growth of around 5 percent.

The major negative factor for the swine industry, if any, is the uncertainty of export demand for pork and pork products by Japan. Since 1973, hog and pork product exports to Japan have dipped from the record high of 35,677 tons in 1973 to 19,205 tons in 1977.

This drop is attributed to the fluctuation in Japan's hog production, prices, as well as to Japan's protective two-tier tariff structure. Also involved is Taiwan's policy of maintaining stable domestic meat prices through its export allocation system. Under this quota system, the Government decides each month how many hogs can be slaughtered the following month for export. One processing plant, for example, has a slaughtering capacity of 2,000 head per day but, because of the allocation system, was given only 530 head for export in July 1978. Consequently, the processing plants and exporters cannot make firm future export commitments.

Pork exporters hope to maintain shipments at levels equal to, or better than, average exports in 1976 and 1977. In the meantime, steps are being taken to reopen or strengthen markets for frozen pork to Korea, slaughter hogs to Hong Kong, and breeding stock to Thailand.

At least one hog producer is also moving ahead to process canned hams in the hope of exporting to the United States.

Exports of hogs and pork products began in 1955, when 8,500 live hogs were exported to Hong Kong. During the next 14 years, Hong Kong was the principal and most often the only

**Taiwan: Imports of Coarse Grains and Soybeans, 1972-78**

*[In thousand metric tons]*

| Year | Corn | Barley | Sorghum | Other[1] | Total coarse grains | Soybeans |
|---|---|---|---|---|---|---|
| 1972 ..... | 1,320 | 436 | 0 | 5 | 1,761 | 712 |
| 1973 ..... | 1,259 | 264 | 41 | 0 | 1,564 | 626 |
| 1974 ..... | 1,107 | 311 | 73 | 0 | 1,491 | 529 |
| 1975 ..... | 1,388 | 163 | 152 | 27 | 1,730 | 827 |
| 1976 ..... | 1,861 | 333 | 255 | 11 | 2,460 | 800 |
| 1977 ..... | 1,993 | 265 | 488 | 15 | 2,761 | 663 |
| 1978 ..... | 2,300 | 300 | 450 | 10 | 3,060 | 950 |

[1] Miscellaneous grains, feed wheat, millet, and canary seed. Imports of feed wheat prohibited after 1971. Source: Foreign Trade Statistics, Taiwan.

market. These exports, however, decreased dramatically from the record 95,000 head in 1959 to virtually none after 1970.

In the early days, export hogs were primarily supplied by the Government-owned Taiwan Sugar Corporation, the largest hog producer in Taiwan. Several large-scale hog raisers have since entered the market, but as of May 1977, the number of farms raising fewer than 50 hogs represented 97 percent of hog-producing units.

In terms of total hog production, these small producers account for about 46 percent of the total, compared with the 75 largest producers (raising more than 5,000 hogs) who produced about 19 percent of the total.

The poultry industry has also been important in Taiwan. Prior to the mid-1950's, poultry production, primarily of native breeds, was a common sideline operation for a large number of households.

Nearly all of the production consisted of native breeds, which had high resistance to disease, but were inefficient egg producers and slow growers.

With the introduction of the Leghorn breed in the early 1960's, chicken numbers grew rapidly, but soon large numbers had to be destroyed because of diseases stemming more from inexperienced management and lack of technical expertise in caring for the new breeds.

In recent years, chicken production has become a highly specialized and large-scale commercial operation.

Gone are the days when chicken were raised primarily for egg production.

Under the integrated improvement program in chicken production launched by the Government in 1963, farmers and all other producers were offered low-interest loans for modernization of production facilities, technical assistance, subsidized imports of improved breeds, and encouragement towards cooperative purchases of quality feeds and marketing of chicken products. □

# Trade Growth a Goal of American Institute in Taiwan

Continuation of the boom in U.S. trade with Taiwan—one of the top 10 markets for U.S. farm products—is a leading priority set for the American Institute in Taiwan.

At the time *Foreign Agriculture* went to press, legislation authorizing creation of the new Institute had passed both houses of Congress, cleared the joint House-Senate conference committee, and was awaiting final approval by Congress and the President.

Its purpose will be to maintain ties between the United States and Taiwan and in lieu of formal diplomatic relations, which ended with U.S. recognition of China.

The nonprofit, nongovernmental Institute will be headquartered in Washington, D.C., with branch offices in Taiwan. It will be responsible for all legally binding activities and agreements formerly handled through the U.S. Embassy in Taiwan.

Employees working under contract to the Institute include an agricultural officer, who has assumed the responsibilities formerly held by the U.S. Agricultual Attaché.

The agricultural officer will collect and analyze economic and trade information essential to U.S. agricultural policies and programs. He also will guide and assist export market development efforts and work toward improving market access for U.S. farm products.

The private groups that have participated in past U.S. market development programs in Taiwan will work with the Institute's agricultural officer in continuing such programs. At present, the U.S. Feed Grains Council, Western Wheat Associates, and the American Soybean Association have offices in Taipei. Other cooperators with activities there include the National Renderers Association, the U.S. Dry Pea and Lentil Council, and the Cotton Council International.

It has been business as usual for these cooperators throughout the transition, and their vital role in market development is certain to continue in the future.

The framework authorized by creation of the Institute maintains the legal enforcement of all contracts, obligations, and credit arrangements in existence prior to January 1, 1979. Trade benefits previously accorded the people of Taiwan thus remain in effect. These include most-favored-nation treatment, eligibility for Export-Import Bank and Commodity Credit Corporation credits, and Overseas Private Investment Corporation privileges.

Throughout the legislative process, in fact, special care was taken to preserve economic and social links between the United States and the people of Taiwan.

One of the major functions of the new Institute is to promote further growth in U.S. trade with Taiwan—already the United States eighth largest trading partner. Recently, this trade has favored Taiwan, which shipped some $5.2 billion worth of products to the United States in fiscal 1978 compared with U.S. exports of $2.3 billion to that country. Taiwan nonetheless is an important U.S. market and ranks among the top 10 outlets for U.S. agricultural products. These U.S. agricultural shipments reached $825 million in calendar 1978 and could hit $1 billion during 1979.

Taiwan has been a particularly strong market for U.S. wheat, corn, cotton, and soybeans. Sales of $100 million or more a year have been recorded for both corn and cotton during the last 3 years, while the value of soybean and soybean-product shipments surpassed $200 million in 1978. Furthermore, U.S. shares of these markets are impressively high, at close to 100 percent for soybeans and 90 percent for wheat and corn.

A similar structure, called the Coordination Council for North American Affairs, has been created by Taiwan to provide services in the United States similar to those offered by the American Institute in Taiwan. The Council is headquartered in Taipei and has its main field office in Washington, D.C. □

# The Effects of Food Aid

In a recent speech, Dr. G. Edward Schuh, Deputy Assistant Secretary for International Affairs and Commodity Programs, USDA, discussed this country's food–aid programs, their direction, implementation, problems, and impact. He addressed such questions as: Does food aid nurture dependency on the part of recipient—and donor . . . does it help the very poor . . . does it further U.S. trade and policy aims? And, of growing concern . . . how does food aid contribute to the formation of human capital and improvement in incomes?

Food-aid programs have evolved greatly over time, and for the most part in the right direction. Seldom is food aid now used as a blatant form of dumping.

We have learned how to manage the programs more effectively. And we have learned the complexities and difficulties of shaping a rational food-aid policy that has general applicability, substituting in its place a rather pragmatic approach that seeks to tailor programs to individual instances and individual problems.

Food aid is likely to be an important form of international assistance into the foreseeable future. Hence, it behooves us to do what we can to improve such assistance. To improve it we need to understand it, and the effects it might have.

Food aid is an income transfer in kind. As an important policy instrument, its origin dates to the 1950's (Public Law 480 was passed in 1954, formally establishing a U.S. program of food aid). The United States had excess production capacity at prevailing domestic price ratios and consequently accumulated large stocks in Government hands. These stocks were costly and burdensome, and had essentially zero value to the domestic economy. We hit upon the idea of disposing of them abroad as food aid.

The original legislative mandate for food aid assigned it four main purposes: Humanitarian aid for emergencies worldwide; further development of low-income countries; development of markets for U.S. farm products; and furtherance of U.S. international political or foreign policy interests.

In the beginning, food aid was used primarily as a disposal operation. Prior to 1965, P.L. 480 exports amounted to 25 percent or more of all U.S. agricultural exports.

The relative importance of food-aid shipments as a share of total U.S. agricultural exports has since declined dramatically. During fiscal years 1973-77, P.L. 480 exports were only about 5 percent of total farm exports.

The 1975 Foreign Assistance Act mandated that a larger share of food aid be used for development purposes. It was not an attempt to channel it away from market development objectives. President Carter has also directed that development priorities be emphasized in the P.L. 480 program.

Food aid has an inherent defect. As an income transfer in kind, it is generally viewed to be inferior to income transfers in monetary form. Whether this argument is valid depends, of course, on how fungible the food aid is. This in turn depends on the conditions on which the aid is extended, and the institutional arrangements by which it is handled in the recipient country. Income transfers in kind, however, tend to be more subject to controls on the part of the donor.

The effects of food aid can be analyzed from a number of different perspectives:

- The disincentive effects on local food production;
- Income distribution consequences;
- Impact on development;
- Stabilization;
- Market development; and
- Dependency.

**Disincentive Effects.** There is little doubt that much early food aid had rather serious deleterious effects on local producers. Many of these negative effects have been attenuated or eliminated as sophistication in administering the program has grown.

Disincentive effects are generally believed to be of two kinds: A direct effect through the impact of the aid on prices farmers receive; and indirect or policy effects on sectoral policies. In the latter case, the argument is that the availability of food aid enables governments to avoid directing development resources to agriculture, or to persist in discriminatory price and trade policies in the pursuit of cheap food policies.

Whether there is a negative effect on price depends on at least four factors: The relative importance of food aid compared with the domestic supply; whether food aid displaces commercial exports or represents additional supply to the local economy; how food aid is introduced into the local economy; and the institutional arrangements that prevail.

In the case of the first factor, there have been cases where food aid has been sufficiently important, compared with the domestic food supply, to lower prices, especially for individual commodities. In the case of Egypt, Jordan, and Bangladesh, P.L. 480 made up 19, 21, and 24 percent, respectively, of total domestic wheat consumption. When food aid is this important, it obviously can have a sizable negative effect on price if it is just sold into the market.

If food aid merely displaces commercial imports, of course, prices would be no lower than in the absence of food aid. In principle, of course, food aid is supposed to be above and beyond regular commercial imports. It is for that reason that a "usual marketing requirement" condition is imposed on food aid. The fact that this requirement is not rigorously adhered to tends to reduce the potential disincentive effect.

Perhaps the most important determinant of the dis-

incentive effect of food aid is the manner in which food aid is introduced into the economy. If it is sold into commercial markets, the likelihood of a disincentive effect is rather strong. However, if it is distributed by other means—especially in such a way as to go to those who would not otherwise be purchasing food—its disincentive effects can be minimized or eliminated entirely. One such mechanism is through the fair-price shops of India, to which in principle only the poor have access at prices lower than in commercial markets. In this case, there is an income transfer to the poor, and this can produce an income effect that may either partially compensate or completely negate any disincentive effect. The principle, of course, is that the more the food aid can be introduced into the system as direct income transfers to the poor, the less likelihood that there will be negative price effects.

Institutional arrangements are important. Perhaps the most relevant case is when governments operate particular kinds of procurement policies. Under such policies a government procures a certain amount of grain at prices lower than those prevailing in the open market. Once procurement needs have been met, the producer can sell his remaining surplus at the higher market price. The availability of food aid reduces the amount of grains the government has to procure, which in turn increases the amount the producer can sell at the higher world price. Under these circumstances, the food aid may actually result in higher average prices to the producer than would otherwise be the case.

The indirect or policy effects are now well recognized. In its simplest form, the argument is that the availability of food aid enables governments to avoid facing up to the development problems of their agricultural sector. Rural people therefore fail to receive their appropriate share of development resources, and the sector lags behind the rest of the economy.

On the other hand, many governments inherently discriminate against their agricultural sector through price and trade policy to keep food prices low to urban consumers. In principle, at least, the availability of food aid could reduce or remove the need for such policies. To be effective in this sense, the food aid would have to be channeled to the targeted groups, and not just sold into the market. Something like a food stamp program or fair-price shops would probably be needed.

The release of price policy from servicing income goals so that it can better serve resource-allocation objectives could result in substantial improvement in economic policy, and reduce the discrimination against agriculture. We have not given sufficient attention to this perspective. If taking this approach should lead to significant institutional development, and well it might, food aid could contribute substantially both to an improvement in economic policy and to longer term development of the country.

**Income Distribution Consequences.** Recent emphasis on basic needs and income distribution has given rise to a more favorable attitude toward food aid. Again, however, the improvement in distribution of income depends in large part on how the food aid is used.

Unfortunately, the popular image is that it is the rich and wealthy who benefit from food aid, and not the poor. This image may have come from the use of food aid for emergency purposes. Under these circumstances, the lack of local administrative and institutional capability to handle the large inflow often resulted in food aid either not being used or being channeled to those less in need. This does not deny, of course, the existence of corruption at the local level in the administration of the food-aid programs.

Interestingly enough, the simple dumping of the aid in the local market, with sizable negative price effects and large disincentive effects to producers, may lead to an improvement in the distribution of income. Low-income families spend a larger fraction of their budgets on food, and therefore would benefit in a relative sense from food-aid programs. In this case, there is a clear tradeoff between efficiency and equity goals.

Such a proposition has to be qualified with a number of caveats, however. It depends a great deal on the product, who consumes it, who produces it, and on the distribution of income between producers and consumers and among each of the two groups individually. The distribution of income can even be worsened by such a simple policy, especially if rural incomes are substantially less than those in urban centers.

Greater emphasis on improving the lot of the poor and on improving the distribution of income has caused more targeted food aid and a shift from program uses to project uses of food aid. Although well-intentioned, the shift in emphasis has a number of difficulties with it. First, the data base in the really poor countries is usually inadequate to do much by way of fine-tuning the programs. Second, there is generally a lack of administrative and professional capability in such countries to make the programs very effective. And third, such targeted programs typically required complementary nonfood-aid resources.

Food aid can be used to improve the distribution of income. By the same token, there is nothing inevitable about it, and even well-intentioned programs may have effects counter to those expected. The great need in this area, in my view, is for more studies of the cost effectiveness of alternative programs. Some of these programs are costly, compared with their ultimate output, and some of the programs that rank high among those appropriately concerned with poverty can benefit from the scrutiny of an efficiency test.

**Development.** Food aid can contribute to development in a number of different ways.

Perhaps the most useful starting point is with the balance of payments. The original "magic" of food aid, of course, was that it could alleviate balance-of-payment constraints, thereby freeing up foreign exchange for development purposes; that it could do this with resources that had essentially zero value to the donor country; and that, in addition, it would generate counterpart funds in the local agency that would have a double whammy. Our current thinking, of course, has moved substantially beyond that original conception.

One of the key issues under this heading is the question of additionality. As typically posed from the donor side, this question basically has to do with whether the food aid represents an additional transfer of resources that would

not occur in its absence.

The additionality question also needs to be applied at the recipient end, although in a slightly different form. In this case, the question revolves around the nominal terms on which the food aid is offered. If food aid and financial aid are offered on the same terms, financial aid is obviously preferable.

The key issue for the recipient, therefore, is whether it is able to use food aid in place of more expensive financial aid, in whatever terms "expensive" is defined. The softer loan terms that generally prevail for food aid may be, in effect, compensation for the disadvantages of aid in kind.

It has been argued that the concessional terms on which food aid is provided cause the recipient government to place a lower value on resources so acquired, and in turn to use them less productively. If that is the case, then whatever additionality there may be is frittered away, at least in part, in poor policies and programs, thereby leading to a lesser contribution to development than the nominal value of the resources might suggest.

A second contribution that food aid can make to development is the greater command over domestic resources it gives the recipient government. The counterpart funds generated by the local sale of the commodities becomes a potentially important source of budget support for the local government. For example, it has been estimated that U.S. food aid alone financed 25 percent of the Bangladesh budget in 1976.

How much control over local resources should pass to the control of the public sectors, and how should those resources be used? Clearly, food aid that goes through government hands gives the recipient government more control over local resources. If you believe that government programs are necessary in order to obtain a higher rate of development, then this may be a positive gain. If you believe in a more market-oriented development policy, with less direct government intervention, you may feel differently.

Dependence on this relatively easy way of mobilizing local resources, however, can result in a failure to develop an effective fiscal system. This in turn can have longer run deleterious consequences, and create serious political and economic difficulties if and when food aid is shut off.

Beyond these issues, the effect of the food aid on development depends on how the resources are used. If they are used for high pay-off investments, their contribution can be substantial.

The idea behind the food-for-work program is that food aid will mobilize resources that would not otherwise be used, result in infrastructure that will facilitate development, and do all of this while providing transfers to the really poor. The growing skepticism about these programs suggests that they have been less than successful in attaining these multiple objectives. This may be because they have not focused on alleviating the key bottleneck.

To the extent that food aid lowers the price of food in the recipient country, it provides an indirect stimulation to economic development. This effect derives from the fact that food is a wage good. With low food prices, it is possible to keep nominal wages lower in the industrial sector, thereby stimulating industrialization.

**Stabilization.** Food aid can contribute to stabilization in at least two ways. In the short run, it can attenuate inflationary pressures that arise due to a crop shortfall. To attain this goal, timeliness is an important criterion. Bureaucratic delays and red tape make this criterion difficult to satisfy through regular food-aid channels.

Recently, however, there have been a number of innovative ideas suggested, designed to use food aid as a means to build stocks for use when a country suffers a shortfall in its domestic agricultural output, or when prices are high in international markets.

Food aid can also be used to help stabilize longer term development efforts. The most obvious case is when it is used to offset an annual crop shortfall. In the absence of the food aid, foreign exchange would have to be channeled to commercial imports, thereby reducing the imports of raw materials and capital goods used for development purposes. More generally, however, food aid may be more easily available in times of stress to offset temporary balance-of-payment constraints, independent of the source of the constraint.

This use of food aid may have declined in importance over time, even though short-term crises provide strong impetus for support programs of any kind. In general, however, the increased emphasis on development objectives has given more impetus to longer-term commitments of food aid. In addition, of course, there are a growing number of financial facilities to provide short-term balance of payment support, and an increasingly well-developed international capital market to which countries can turn in times of stress.

A negative effect of food aid for this purpose, just as with other forms of stress relief, is that it enables the recipient country to avoid changes in economic policy that may be necessary in the longer run. The difficulty, of course, is to distinguish between a short-term problem and the beginning of a longer term disequilibrium.

The various balance of payments insurance schemes that have been proposed for food aid have relevance for this longer term problem as well. The only difference is that the criterion for use has to be broader than just a domestic crop shortfall. This raises the question, again, of whether food aid and grain reserves are the appropriate policy response to the problem.

**Market Development.** Although not generally considered in assessments of the effects of food aid, market development is an important expected effect, at least in the case of U.S. food aid. Market development is an important source of the political support for food aid, and is one of the reasons that domestic support for this form of foreign assistance has been sustained in the face of declining support for other forms of foreign assistance.

Bureaucratic wrangling in Washington would suggest that there is a sharp conflict between use of food aid for market development purposes and its use for development purposes per se. I believe this conflict is more imagined than real, and that at most it represents more of a squabble over turf than a judgment about programmatic effects.

A look at the data leaves little doubt as to the efficacy of food aid as a basis for market development. Since the 1960's, almost all major P.L. 480 recipients have substantially increased their commercial purchases of U.S. farm

products. Five developing areas—Taiwan, Republic of Korea, India, Egypt, and Indonesia—and two developed countries—Japan and Spain—are examples of former and current P.L. 480 Title I sales recipients that have become good U.S. commercial customers.

However, the case need not rest solely on the observed correlation between food aid and market development. To the extent that food aid as a form of development assistance helps the recipient country to grow at a faster rate, it is logical to expect that large beneficiaries of food aid would eventually become strong commercial markets.

It is sometimes argued that food aid causes a shift in tastes, which in turn causes the recipient country to become "hooked" on our agricultural products.

There have been significant shifts over time in the product mix consumed by the recipient countries. But at least part of this shift may be due to increases in per capita income, and to the rising value of human time as development proceeds. At least part of the observed shift to wheat in many countries can be explained by this means, which in the final analysis is a natural corollary of economic development.

**Dependency.** A frequent criticism of food aid is that it nurtures dependency on the part of the recipient country. Presumably, this is more likely with food aid than with regular financial assistance because of the institutional arrangements which evolve around payment-in-kind programs, and because of the perceived disincentive effects of food aid. If food aid does in fact enable a country to put off the development of its agricultural sector, clearly the country will continue to be dependent on food aid.

Countries also may become dependent because of the contribution that counterpart funds make to the domestic budget. It is well recognized, for example, that India in particular was concerned that it was becoming too dependent on this budget support, thereby failing to develop its own taxing instruments.

An evaluation of dependency is rather difficult. However, the list of graduates from food aid is rather long. That at least suggests that whatever dependency there may be is not overpowering.

It should also be noted that there is another form of dependency that is less recognized. Interestingly enough, donor countries can also become dependent on food aid programs. Food aid becomes a substitute for domestic adjustment policies. One need go no further back in time than the last session of Congress when a bill was introduced to raise the food-aid commitment to 7 million tons a year. The objective of that bill, of course, was to expand exports and thereby to raise prices to farmers. More generally, support for food aid has strengthened in recent years as agricultural prices plunged from their commodity-boom peaks of 1973-76.

**New Perspectives on Food Aid.** Two aspects of economic theory have been rather neglected by both practitioners and analysts of food-aid programs. The first is the new household economics and the theory of human capital on which it is based. The second is the negative income tax. The lesson from the theory of human capital is that such forms of investment are as important, or more important as investments in physical capital. Moreover, the stock of human capital is increased by investments in improved nutrition, health, formal schooling, and training programs. The lesson from the new household economics is that what goes on in the household is as important to a society, even for developmental purposes, as what goes on in private firms and in terms of the physical infrastructure a society may develop.

Food aid lends itself especially well to the development of human capital. Improved nutrition has probably received the most emphasis. School-lunch programs have also received attention, but unfortunately not always as a means to increase the stock of human capital, but primarily as a vehicle for getting food aid to the poor.

In my view, the U.S. food aid program should be revitalized by shifting as large a part of it as feasible to investments in human capital. This does not imply the abandonment of basic needs programs. It does require the abandonment of a welfare mentality and a shift in emphasis toward the formation of human capital. If the relevant programs are focused on the poor, they will improve both the distribution of income in the recipient country and provide the basis for a more rapid rate of growth.

Therefore, if food aid is to be used for the formation of human capital, it should be directed to informed institutions to create the means whereby children can participate in formal schooling and training programs, and to enable mothers to withdraw from the labor force, especially in the formative years of their children.

Impetus for a negative income tax in the United States has evolved in large part from disillusionment with extensive intervention in the lives of the poor and with the disappointing results from such programs. An important lesson from our own experience is that extensive intervention has a low benefit/cost ratio, with middle income groups absorbing an important share of the income transfer rather than the poor.

The U.S. experience with the negative income tax appears to show that poor families use the income they receive in such a way as to increase the formation of human capital within the household. They use it to improve the nutritional status of their family, to enable the wife to withdraw from the labor force to give more care to the children, and to increase the schooling rates of the children. Moreover, performance in school increased.

I would like to emphasize three points. First, food aid is an important example of politics as the art of the possible. Although far from an ideal way of transferring resources, it is also not all bad, as many imply, and it does persist. With its multiple objectives, it does seem able to sustain the political coalition that gives it longevity.

Second, generalization about the effects of food aid is difficult because it depends on so many independent variables. Seldom do other factors remain constant, so one must define the conditions under which food aid is supplied to draw any strong conclusions about the effects of food aid.

Finally, there is a great deal we don't know about how food aid programs impact on either the recipient or donor country. Additional research is sorely needed. Perhaps the most valuable research is that which is tied to ongoing programs, and which provides a means of learning from programs as alternatives are considered and as experience is gained with individual programs. □

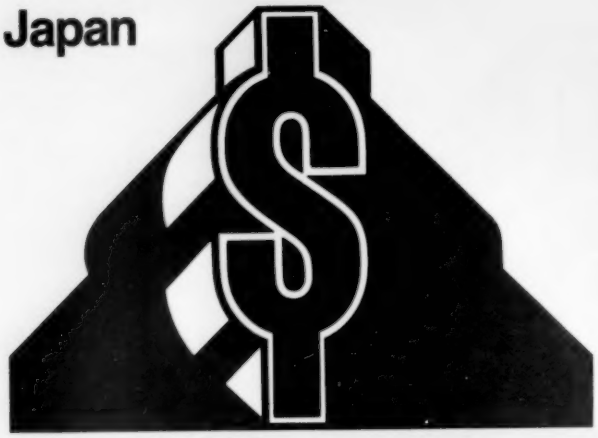
# Our Billion Dollar Farm Markets

In 1970, U.S. agricultural exports to Japan edged past the billion-dollar mark to set a new milestone for U.S. trade. Since then, seven other nations have reached or passed that benchmark—three in calendar 1978 alone. Together, they took an impressive $14.7 billion worth of U.S. agricultural exports last year—more than twice the value of all U.S. farm exports a decade ago and half total shipments in calendar 1978.

West European nations are the majority in the "billion-dollar club," but the U.S. farmer's export outreach continues to broaden. The Soviet Union has grown from a $5-million market in 1968 to a $1.7-billion outlet in 1978—the third largest worldwide. In the Far East, U.S. farm exports to Japan—still our No. 1 market—reached $4.4 billion last year, and those to South Korea totaled $1.1 billion—about six times U.S. sales there in 1968. The other billion-dollar markets are the Netherlands, $2.3 billion; Canada, $1.6 billion; West Germany, $1.5 billion; the United Kingdom, $1.1 billion; and Italy, $1.0 billion.

What happened to production and trade in these important markets last year? . . . What are this year's prospects? . . .

# Japan



## Japan Still by Far the Largest Market for U. S. Farm Products

Japan is again the largest single-country market for U.S. agricultural products (primarily oilseeds, grains, and cotton), outdistancing the next largest market by over $2 billion. U.S. agricultural exports to Japan in calendar 1978 were valued at $4.4 billion, compared with exports of $3.86 billion in 1977.

Soybeans were the largest U.S. agricultural export to Japan, up 4.6 percent in value in 1978 to $938 million. Volume was also up from 3.4 million tons in 1977 to 3.96 million tons in 1978. The United States continued to dominate the Japanese oilseed import market, holding down a 95 percent share of the soybean market and a 75 percent share of total oilseed imports.

Other major U.S. agricultural exports to Japan in 1978 (with 1977 values in parentheses) were: Corn, $915 million ($812 million); wheat, $432 million ($374 million); cotton, $348 million ($310 million); cattle hides, $233 million ($186 million); sorghum, $232 million ($241 million); and tobacco, $227 million ($260 million).

As a result of the increase in the beef quota in 1978, the United States made a sharp inroad into the Japanese market. Compounded by a rise in the unit prices of many commodities, the value of U.S. exports of beef and veal jumped 125 percent in 1978 to $117 million, compared with $52 million in 1977. The volume of shipments was up 68 percent over year-earlier levels.

Other meat sectors also had large gains in value—pork by 45 percent and poultry by 39 percent. The value of these two items rose to $87 million and $50 million, respectively, in 1978. The volume of pork shipments was down by 2 percent, that of poultry was up by 6 percent.

In other U.S.-Japanese trade developments, U.S. exports of raw cotton to Japan in 1977/78 totaled 1.077 million bales (480 lb net). Japan is the second largest U.S. market for cotton, after South Korea. The United States accounts for almost a third of Japan's total cotton purchases. In November 1978, the Japan Spinners Association announced that it will discontinue use of U.S. Export-Import Bank loans to finance cotton imports, citing a widening gap in interest rates available in Japan and the United States.

The value of U.S. wheat exports to Japan was up 15.5 percent in 1978. The yen's rise in value against the U.S. dollar resulted in a sharp rise in imports of processed wheat products, a trend expected to continue in 1979.

Imports of coarse grains, Japan's largest single agricultural import from all sources, were valued at $1.988 billion in 1978, and imports are expected to rise this year as well. Japan's compound feed industry is extremely dependent on imports of feedstuffs, particularly grains and oilseed proteins. As feed production is expected to increase to over 21 million tons in 1978/79, traders are upping their coarse grain imports.

However, one of the key developments in Japanese agriculture in 1978 was the Government's decision to initiate a 5-year surplus rice disposal program, including use of certain quantities in feed. This program may adversely affect Japan's feedgrain and food soybean imports, but the Japanese Government has assured U.S. officials that every effort will be made to minimize the impact of the program.

The United States is expected to continue to supply over 80 percent of Japan's corn imports and over 45 percent of its sorghum imports because of year-round capability to ship at competitive prices. However, about 95 percent of the barley imported comes from Canada and Australia under long-standing trade agreements.

Although the volume and value of U.S. tobacco exports to Japan dipped in 1978, Japan remains the second largest U.S. market for this item. The U.S. market share increased as Japan's imports of low-quality tobacco fell.

In the produce sector, the United States continues to be the leading supplier of fresh citrus fruit to Japan. In 1978, an estimated 117,940 tons of lemons, 50,800 tons of oranges, and 125,000 tons of grapefruit were imported from the United States.

Imports of fresh deciduous fruits from the United States are prohibited because of plant quarantine restrictions. However, for the first time, commercial imports of 265,680 pounds of U.S. cherries were made in 1978.

Potential demand for U.S. sweet cherries in Japan is

great and interest in the product by Japanese importers is high. However, the current plant quarantine safeguard procedures required by the Japanese Government are a limiting factor on imports. Modifications in the procedures are being proposed by the U.S. side to permit future expansion in U.S. sweet cherry shipments.

Imports of most fresh vegetables are also prohibited. But the recent rapid development of Japan's fast food industry has stimulated demand for imported potato products.

The popularity of women's boots and leather garments has boosted imports of both finished goods and U.S. hides and skins, the latter of which by 25.3 percent in value in 1978 to $233 million.

Turning to the economy in general, the effects of the yen appreciation are beginning to be felt; growth in exports is declining and that of imports is rising. The yen is likely to remain at its current value level and prospects for exports to Japan will remain good.

Japan's foreign trade performance remains strong despite appreciation of the yen. However, total Japanese exports, in yen terms, were down 8.9 percent in calendar 1978—the first annual decline since 1952. The rate of growth of Japan's exports to the United States in dollar terms dropped from 39 percent in the first quarter of the year to 16 percent in November. Meanwhile, the rate of growth of U.S. exports to Japan increased from 0.3 percent to 42 percent.

Overall, the Japanese economy is and will remain healthy, but with strength concentrated in the advanced industrial sectors that have led export growth. The agricultural sector remains highly productive, but very costly.

According to Japanese data, farmers made substantial gains in 1978 in production of wheat (up 56 percent to 367,000 tons), barley (up 58 percent to 326,000 tons), soybeans (up 71 percent to 190,000 tons), poultry meat (up 12 percent to 890,000 tons), beef (up 12 percent to 405,000 tons, carcass weight equivalent), pork (up 13 percent to 1.285 million tons, carcass weight equivalent), and milk (up 7 percent to 6.15 million tons).

Rice production, at an estimated 11,456 tons (milled basis), was down 4 percent. However, rice stocks are still high, and on December 26, 1978, the Government decided to dispose of 4.6-4.8 million tons (brown basis) of surplus rice over a 5-year period.

The rice land diversion program will be continued and the Ministry of Agriculture, Forestry, and Fisheries will still invest in programs to increase rice consumption.

Also lower in 1978 was production of peanuts, mikans, apples, onions, pulses, and tobacco.

The same general production pattern is expected in 1979 except that mikan production will increase and the Government hopes to hold rice production to a level roughly equal to consumption. Beef production may level off or decline because of heavy slaughter in 1978.

In the consumption sector, the Japanese ate more cheese, milk, red meat, poultry, high-quality processed meats, bread, and noodles in 1978. Pork consumption was also up slightly. Further gains are expected in 1979—*Based on a report from Office of the U.S. Agricultural Attaché, Tokyo.* □

## Netherlands

# U.S. Farm Exports to the Netherlands Hit New High

Soybeans and products led the way to a new record for U.S. agricultural exports to the Netherlands during calendar 1978—$2.3 billion (unadjusted for transshipments) against $2.1 billion in 1977. The country thus stood next to Japan as the top U.S. farm market, with this status reflecting in part the Netherlands large transshipments of U.S. products to other European countries.

U.S. export results in 1979 again will be influenced by stong Dutch demand for soybeans and products. But U.S. grain exports face heightened competition from nongrains and the ample European Community (EC) supplies of wheat and barley.

Dutch agricultural exports also rose slightly during the first 9 months of 1978. However, shipments of pork and dairy products did not increase enough to ease domestic surplus and price problems in those areas.

The Dutch economy, meanwhile, remains in the doldrums following last year's real growth of only 2 percent in the gross national product. Moreover, unemployment rose slightly during 1978, and the current-account balance of this trade-oriented nation

moved into the red following a surplus in 1977.

While economic growth may not pick up markedly during 1979, Dutch forecasters anticipate some increase in private-sector production and a possible improvement in the current-account position.

One of the outstanding farm-trade developments last year was the sharp rise in Dutch purchases of oilseeds. Net imports rose by 54 percent as total crushings of oilseeds climbed some 40-45 percent to a record 2.4-2.5 million metric tons.

The country's expanding use of nongrains, such as tapioca, contributed to this growth, since larger quantities of soybean meal or other high-protein ingredients must be used to make up for low protein levels in the nongrains.

U.S. soybeans, in particular, benefited from these trends. The United States exported $1.13 billion worth of soybeans to the Netherlands in calendar 1978, compared with $902 million worth in 1977. Value of U.S. soybean meal exports also rose, to $126 million from $101 million in 1977. Soybeans and products thus accounted for about half the total value of U.S. agricultural exports to the Netherlands last year.

Also benefiting from these changing feed-use patterns were U.S. shipments of corn gluten feed—up by more than $30 million from the 1977 level to $157 million.

U.S. shipments of wheat to the Netherlands likewise jumped dramatically — by some 72 percent from the 1977 level to $120 million. Low quality of domestic wheat last year forced the Dutch to buy more U.S. hard wheat — a dilemma that still confronts the Netherlands and other EC countries, despite their record 1978 wheat crops.

However, these bumper crops will tend to hold down gains in U.S. wheat sales to the Netherlands, since more EC wheat is being used as livestock feed, and will thus compete directly with U.S. feedgrain exports.

Other sources of competition for U.S. feedgrains are EC barley and nongrain feeds from outside the Community. Greater use of the nongrains in mixed feeds, in fact, contributed to a 35-percent decline to $282 million in U.S. feedgrain exports to the Netherlands last year. U.S. shipments of feeds and fodder also declined by some $10 million to $248 million.

In contrast, Dutch imports of tapioca in calendar 1978 are estimated to have risen nearly 35 percent from the 1977 level to 2.8 million tons.

Among other leading U.S. exports to the Netherlands, shipments of raw tobacco rose by more than a fifth to $62.4 million.

As of January 1, 1979, the EC introduced a new transitional conversion rate of the European unit of account, which led to a nearly 12-percent increase in import duties on U.S. tobacco. However, the short-term impact on U.S. trade may be minimal, since Dutch importers still can import U.S. tobacco via the United Kingdom, where the import price is some 25 percent less than that charged in the Netherlands.

During the past two seasons, the United States accounted for 10-12 percent of Dutch orange imports, while becoming the leading supplier of grapefruit—some 26,000 tons—and lemons. For 1979, however, the trade outlook has been dimmed by recent frosts in the United States and consequent production declines.

Prospects for sales of U.S. apples and pears to the Netherlands also are bearish as a result of the large European supplies.

Dutch agricultural exports rose slightly during the first 9 months of 1978 (complete trade figures for the year are not available). Exports during that period totaled 19.8 billion guilders,[1] compared with 18.8 billion the year before. Leading markets, in order, were West Germany, France, Belgium-Luxembourg, the United Kingdom, and Italy.

Products of the poultry, livestock, and dairy industries alone accounted for nearly 40 percent of the total exports. Other important exports were vegetables and fruits, ornamental plants, and grains and products—much of the latter being re-exports of products imported from the United States and other countries.

Dutch shipments of livestock and meat products rose by some 10.2 percent last year to over 900,000 tons. Exports of pork accounted for more than half the meat shipments as they rose some 17.5 percent above the 1977 level. Further increases are expected in 1979 and, indeed, will have to take place in pork shipments if the country is to avoid strong downward pressures on prices.

The country's poultry industry had a difficult year in 1978, in large part because of waning demand from the export market, which takes more than 70 percent of Dutch production. Poultry meat shipments fell some 4 percent below the 1977 level in the wake of reduced broiler sales to the USSR and West Germany, and a 23-percent decline in turkey exports. Value of egg shipments rose slightly, as volume gained measurably, but average prices were 20 percent below 1977's.

For early 1979, broiler supplies are expected to increase, but a sharp decline is forecast for turkey meat production. Indications are that the Soviets may import up to 15,000 tons of broilers and other chickens in the first quarter of 1979 alone, whereas last year broiler shipments to the USSR totaled only about 4,000 tons.

Marketing prospects for Dutch eggs also have improved temporarily as a result of larger (subsidized) exports of fresh eggs to the Middle East. But with supplies expected to be up in 1979, a recurrence of downward pressure on Dutch egg prices seems inescapable.

Stagnating exports and increasing imports confronted the dairy industry last year. Trade statistics show an 11-percent increase in volume of Dutch dairy-product exports last year. However, virtually all of the gain came as a result of increased deliveries of Dutch butter and nonfat dry milk to the intervention agency in Germany. Moreover, while total shipments of butter and nonfat dry milk rose, those of cheese, whole dry milk, canned milk, and fluid milk declined.

Upward trends in butter and nonfat dry milk production point to more supply problems this year, with even cheese—for which supply and demand usually are more in balance—likely to be affected. One potential alleviating factor is stepped-up USSR buying of Dutch butter.—*Based on a dispatch from James A. Hutchins, Jr., U.S. Agricultural Attaché, The Hague.* □

[1] *Value of the Dutch guilder averaged $0.408 in 1977 and $0.463 in 1978.*

USSR

# Grain Pushes U. S. Farm Sales to USSR to $1.7 Billion

The Soviet Union—in third place among the markets buying more than $1 billion worth of U.S. farm commodities in 1978—took record exports of nearly $1.7 billion. The preliminary figure for these exports is $1,686.5 million, but the total could rise as the data are refined.

Once again the major U.S. commodity was grain of which 12.9 million metric tons were shipped to the Soviet Union in 1978. This is short of the record 13.4 million tons that were sold to the USSR in 1973, but it is the second largest quantity sold to the Soviets in a single calendar year. Corn made up 9.9 million tons of the 1978 total, wheat 2.9 million tons.

U S. soybean shipments to the USSR were markedly higher in 1978 than in 1977—744,000 tons compared with 565,000 tons in 1977. U.S. rice sales to the Soviet Union were down sharply in 1978, probably because of the bumper 1977 Soviet rice crop.

U.S. exports of other products to the Soviet Union rose markedly in 1978. Such trade was valued at $107.1 million. The commodities which accounted for the largest share of the growth in 1978 were peanuts, hides, and tallow. Their combined export value was on the order of $40 million.

Other commodities showing increases were hops, soy food proteins, lemons, and possibly almonds. Tobacco was imported last year for the first time in many years. Other than rice, the main cutbacks in 1978 (compared with shipments in 1977) were in seeds and poultry.

U.S. farm product exports to the Soviet Union in 1979 are expected to drop because of projected smaller imports of grain.

Increased soybean purchases could compensate to some extent for losses in grain revenue.

Although hard estimates are difficult to arrive at, best indications are that Soviet purchases of U.S. soybeans will be some 1.0-1.5 million tons, with an estimated value of $250-$375 million.

The Soviet Union already has bought 900,000 tons of U.S. soybeans.

There is also a strong possibility that purchases of U.S. rice by the Soviet Union will be larger. However, U.S. nongrain exports to the USSR in 1979 will be off moderately to some $75 million.

If individual exports are within the expected ranges, total U.S. agricultural exports to the Soviet Union in 1979 could be somewhere between $1.1 billion and $1.5 billion.

Potentially high nongrain exports to the Soviet market in 1979, include: Fresh lemons, almonds, peanuts, broilers, breeding cattle, seeds, soy food concentrates, hops, cigarette tobaccos, hides, and tallow. Price and availability play an important role in determining what the Soviet Union buys from whom.

In 1979, soybean imports by the USSR from all sources may rise to 1.5-2.0 million tons. Meat imports from Western sources (both red and poultry meat) may reach 100,000 tons above the 1978 level; contract totals for meat imports from Western sources are already higher than 1978 levels.

Larger vegetable oil imports probably will be needed in 1979 because of the smaller Soviet cotton and sunflower crops, and their poor quality in 1978.

The 1978 Soviet rice crop was down from 1977 levels, and its quality is lower. Also, the Soviet Union has received requests for rice aid from Vietnam and Laos because of their reduced crops. Thus Soviet rice imports may be at least 50,000 tons above average yearly levels.

Imports of sugar, the other major Soviet farm commodity import, also are expected to rise to a level slightly over the 1978 near-record volume of 4.0 million tons. Larger foreign procurements of fruit and tobacco also are likely in 1979 because of the poor Soviet crops in 1978.

In 1978, total Soviet crop output was generally well above the average of the previous 5 years, but only grain and cotton met or exceeded planned production targets. Output of sunflowers, fruit, and tobacco was poor. Quality problems were considered more serious than usual for most crops, especially grain, cotton, sunflowerseed, fruits, vegetables, hay, and possibly sugarbeets.

The problem was cool weather early in the growing season and the late arrival of seasonable weather in much of the western USSR, and an exceedingly late, wet harvest in many of the same areas. Exceptions were noted in Krasnodar Kray and the Crimea, but Rostov, Volgograd, and even areas as far east as Uralsk Oblast had an early dry harvest season.

Livestock product output continued the growth cycle that was started in 1976, but dairy production was disappointing. Egg output was at a new peak, and livestock numbers in all categories set records.

The 1978 USSR meat target (including poultry meat) was 15.6 million tons (slaughter weight); actual production was 15.2 million tons. The red meat target is estimated at 13.6 million tons but actual production was 3 percent less than the plan and 0.8 percent more than actual production in 1977.

Pork production in the socialized sector grew faster than beef outturn—5

*Continued on page 16*

# Food Price Indexes Up in All Countries Surveyed by FAS

Food price indexes (FPI's) were up in all major countries surveyed by FAS during January—continuing an accelerating trend that began in November 1978.

The U.S. index for January—at 193.7 (1970=100)—is up 2 percent over the December level and indicates food prices have risen 12.3 percent since January 1978.

Of the countries reporting in the survey, Argentina, Brazil, Canada, South Africa, and Mexico have had a more substantial percentage increase in the index than the United States.

Argentina continues to have the highest FPI (85,722.9) and West Germany (145.2), the lowest.

However, the United States still has one of the lowest FPI's after West Germany, the Netherlands (162.5), and Belgium (175.8).

U.S. Agricultural Attachés report monthly FPI's for selected countries on a bimonthly basis, as well as report prevailing prices for selected food items in the capitals of the countries to which they are assigned.

**Meat.** Sirloin prices were up in all capitals shopped by the Attachés on March 7, except The Hague, Brussels, and Stockholm, where prices were generally stable. However, the price of chuck roast rose 2 percent to a new high in Brussels.

In Ottawa, beef items were up dramatically (sirloin up 15 percent and chuck up 31 percent) because of the market price increase for slaughter steers.

Pork and chicken prices in Ottawa were pulled up because of strong demand generated by the beef price increases.

Higher pork prices in The Hague were caused by temporary short supplies and an increase in domestic and local demand.

In many of the capitals surveyed, pork and broiler prices are firming up because of the increased demand brought on by high red meat prices.

Egg prices were down in Tokyo, The Hague, and Copenhagen primarily because of overproduction.

Egg prices in Brussels were down 20 percent from those of a year ago, and egg prices in other capitals tended to fluctuate according to seasonal factors.

**Dairy.** In Rome, retail milk prices rose 15 percent because of producers' biannual cost-of-production increases.

The price of milk in

**By Jane K. Phillips, economist, Dairy, Livestock, and Poultry Division, Commodity Programs, FAS.**

**Data Qualifications.** Food price indexes, which reflect food price changes in general, are obtained from official government sources. They are based on local-currrency prices, and are not directly affected by exchange rate fluctuations.

Food prices of selected commodities are obtained by U.S. Agricultural Attachés on the first Wednesday of every other month. Local currency prices are converted to U.S. prices on the basis of exchange rates on the date of compilation. Thus, shifts in exchange rates directly affect comparisons between time periods.

The objective of the survey is to reflect the level of prices in other countries of items normally purchased by U.S. consumers. Exact comparisons are not always possible, since quality and availability vary greatly among countries. An attempt is made to maintain consistency in the items and outlets sampled, but they are not necessarily representative of those in the reporting countries. □

## Food Price Index Changes in

| Country | Latest month | Index 1970=100 |
|---|---|---|
| Argentina | Jan. | 85,722.9 |
| Australia | Jan. | 231.4 |
| Belgium | Jan. | 175.8 |
| Brazil | Jan. | 1,011.1 |
| Canada | Jan. | 222.6 |
| Denmark | Jan. | 230.7 |
| France | Jan. | 223.6 |
| Germany | Jan. | 145.2 |
| Italy | Jan. | 288.1 |
| Japan | Jan. | 216.2 |
| Mexico | Jan. | 346.9 |
| Netherlands | Jan. | 162.5 |
| South Africa | Jan. | 251.5 |
| Sweden | Jan. | 217.3 |
| United Kingdom | Jan. | 336.2 |
| United States | Jan. | 193.7 |

[1] Based on official price indexes.

## FAS Survey of Retail Food Prices in Selected World

[U.S. dollars per kg [1] or units as indicated, converted at current ex

| City | Steak, sirloin, boneless | Roast, chuck, boneless | Pork chops | Roast, pork, boneless | Ham, canned | Bacon, sliced, pkgd. | Broilers, whole | Eggs, dozen | Butter | Margarine | Cheese: Cheddar, Edam, or Gouda | Milk, whole, liter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bonn | 10.71 | 5.94 | 7.08 | 6.38 | [2] | 5.68 | 2.70 | 1.48 | 4.74 | 2.70 | 5.68 | 0.57 |
| Brasília | 2.87 | 2.51 | 2.66 | 3.69 | [2] | 4.02 | 1.39 | .80 | 2.33 | 1.27 | 4.10 | .26 |
| Brussels | 12.48 | 6.72 | 5.11 | 5.42 | 7.84 | 5.22 | 3.14 | 1.36 | 5.11 | 2.15 | 7.09 | .61 |
| Buenos Aires | 3.42 | 2.34 | 3.24 | 5.22 | 6.93 | 4.68 | 2.61 | 1.17 | 5.13 | 3.42 | 6.21 | .59 |
| Canberra | 6.96 | 4.11 | 4.44 | 3.99 | 5.38 | 7.38 | 3.26 | 1.10 | 2.16 | 2.02 | 3.51 | .16 |
| Copenhagen | 18.90 | 7.31 | 8.80 | 7.56 | 7.72 | 8.33 | 2.96 | 1.78 | 4.09 | 2.12 | 6.44 | .61 |
| London | 10.05 | 4.84 | 5.03 | 3.59 | 3.68 | 6.11 | 1.98 | 1.53 | 3.19 | 1.77 | 3.68 | .48 |
| Mexico City | 3.82 | 3.73 | 3.66 | 4.04 | [2] | 4.00 | 2.37 | .83 | 3.42 | 1.69 | 7.38 | .29 |
| Ottawa | 6.47 | 4.43 | 4.44 | 4.37 | 5.63 | 3.55 | 2.14 | .84 | 2.64 | 2.38 | 4.13 | .50 |
| Paris | 8.70 | 4.87 | 4.35 | 6.15 | 9.41 | 10.33 | 3.17 | 1.59 | 4.45 | 1.71 | 3.63 | .57 |
| Pretoria | 4.30 | 3.53 | 3.50 | 3.82 | 4.81 | 3.84 | 1.39 | .74 | 2.17 | 1.75 | 2.45 | .40 |
| Rome | 9.53 | 8.93 | 4.76 | 5.36 | 5.96 | 5.24 | 2.97 | 1.26 | 4.45 | 1.73 | 4.50 | .55 |
| Stockholm | 13.27 | 9.57 | 6.87 | 12.09 | 8.29 | 7.38 | 3.87 | 1.96 | 3.43 | 2.62 | 6.30 | .47 |
| The Hague | 11.96 | 7.00 | 5.75 | 7.25 | 6.96 | 9.96 | 2.43 | 1.11 | 4.51 | 1.58 | 5.71 | .52 |
| Tokyo | 39.98 | 26.26 | 10.09 | 9.46 | 12.89 | 7.97 | 3.49 | 1.00 | 6.49 | 2.76 | 5.44 | 1.00 |
| Washington | 7.03 | 4.76 | 5.11 | 6.37 | 5.22 | 4.01 | 1.65 | .91 | 3.88 | 1.74 | 5.11 | .62 |
| Median | 9.12 | 4.86 | 4.90 | 5.39 | 6.93 | 5.46 | 2.67 | 1.14 | 3.99 | 1.90 | 5.28 | .51 |

[1] 1 kilogram=2.2046 pounds; 1 liter=1.0567 quarts. [2] Not available. [3] Domestic; imported—$6.59. Source: U.S. Agricultural Attachés.

Washington continues to be high and—at 62 cents per liter—is surpassed only by Tokyo, where milk sells for $1 per liter.

The Attaché in The Hague reports that the price of cheese has risen slightly because of good export demand and the success of the voluntary production restraints exercised by Dutch cheese producers.

**Produce.** The prices of tomatoes were up in all capitals surveyed, with the exception of those in South America, because of seasonal factors.

Italy was particularly hard hit by the negative effects of cold weather on the greenhouse crop; as a result, prices are double the level of January.

Potatoes continue to be a good buy in the United States because of the bumper crop. Prices averaged 26 cents per kilogram, down almost 40 percent from the January level.

Conversely, potato prices in Brussels were up 8 percent from the last reporting period to compensate for storage costs and were 50 percent higher than a year ago.

Onion prices were up over 40 percent in Ottawa, reflecting the ability of Ontario growers to move surplus supplies into export.

In Brussels, the retail price of a dozen oranges was up 15 percent because of good local demand and an anticipated smaller U.S. orange crop. □

**es in Selected Countries [1]**

| 00 | Percent change from Prev. month | Three months | One year |
|---|---|---|---|
| 9 | +15.5 | +26.3 | +183.2 |
| 4 | + 2.0 | + 2.5 | + 12.4 |
| 8 | + 1.1 | + 1.2 | + .1 |
| 1 | + 4.5 | + 6.7 | + 47.5 |
| 6 | + 1.9 | + 2.5 | + 14.0 |
| 7 | + .3 | + .3 | + 7.6 |
| 6 | + .8 | + 1.2 | + 8.4 |
| 2 | + .8 | + 1.5 | + .6 |
| 1 | + 1.1 | + 1.8 | + 12.4 |
| 2 | + .8 | + .1 | + 2.8 |
| 9 | + 5.0 | + 6.2 | + 19.7 |
| 5 | + .4 | + .3 | + .6 |
| 5 | + 1.9 | + 3.0 | + 14.4 |
| 3 | + 1.1 | + 1.8 | + 3.9 |
| 2 | + 3.3 | + 4.6 | + 10.9 |
| 7 | + 2.1 | + 2.8 | + 12.3 |

**rld Capitals, March 7, 1979**

rent exchange rates]

| Milk, hole, liter | Oil, cooking, liter | Tomatoes | Onions, yellow | Potatoes | Apples | Oranges, dozen | Bread, white, pkgd. | Rice | Sugar |
|---|---|---|---|---|---|---|---|---|---|
| 0.57 | 0.97 | 2.14 | 0.97 | 0.43 | 1.19 | 2.46 | 1.57 | 1.57 | 0.81 |
| .26 | 1.00 | .60 | .42 | .42 | 1.96 | .55 | (2) | .52 | .38 |
| .61 | 2.08 | 2.49 | .51 | .22 | 1.06 | 1.74 | 1.11 | 1.19 | 1.11 |
| .59 | 2.25 | 1.04 | .50 | .54 | 1.76 | 3.83 | .99 | 1.17 | .95 |
| 16 | 2.62 | 1.68 | .59 | .51 | .63 | 1.49 | .98 | .80 | .44 |
| .61 | 2.80 | 3.65 | .90 | .57 | 1.15 | 3.07 | 1.72 | 1.68 | 1.72 |
| .48 | 1.71 | 2.42 | .58 | .31 | .72 | 2.26 | .76 | 1.08 | 1.32 |
| .29 | 1.09 | .26 | .22 | .39 | 1.18 | .34 | .58 | .57 | .26 |
| .50 | 1.64 | 1.66 | .48 | .22 | 1.34 | 2.34 | .86 | 1.30 | .46 |
| .57 | 1.16 | 1.85 | .46 | .24 | .84 | 1.39 | 2.23 | 1.35 | .69 |
| .40 | 1.43 | .88 | .41 | .34 | .58 | 1.33 | .34 | 1.00 | .47 |
| .55 | 1.05 | 2.38 | .60 | .42 | .83 | 1.62 | .82 | 1.25 | .80 |
| .47 | 5.33 | 4.40 | 1.24 | .61 | .85 | 2.09 | 2.13 | 1.56 | .96 |
| .52 | 1.35 | 1.98 | .38 | .23 | .44 | 1.28 | .88 | 1.15 | .87 |
| 1.00 | 1.96 | 2.76 | 1.14 | 1.57 | 2.08 | [3]2.76 | 1.37 | 1.54 | 1.16 |
| .62 | 2.26 | 1.68 | .62 | .26 | 1.19 | 2.40 | 1.30 | .95 | .71 |
| .51 | 1.57 | 1.92 | .55 | .41 | 1.11 | 1.92 | .99 | 1.16 | .80 |

## *Australia Has Record Wheat Crop*

Australian wheat production during 1978/79 (December-November) has exceeded all previous expectations and is now estimated at a record high of 17.9 million metric tons, according to Brice K. Meeker, U.S. Agricultural Attaché in Canberra. The final total could go even higher because a large volume of wheat is still on farms, delayed by delivery and storage problems at country elevators.

Wheat exports are estimated at 9.5 million tons. The Australian Wheat Board has set an export target of 10 million tons, but this level is unlikely because of labor problems at port terminals in recent months. A carryover of about 6 million tons is anticipated.

Weather conditions during the final growing period were generally excellent and led to extraordinarily high yields in many districts. However, rain at harvesttime in Queensland and New South Wales damaged a substantial share of the crop in those areas and is likely to cause about 1.5 million tons of wheat to be graded General Purpose or Feed. There will be adequate quantities of Prime Hard and Hard wheat available to meet anticipated market demand.

Australia's winter feedgrain production also set a record, with the barley crop estimated at about 4.36 million tons and oats at 1.9 million tons. A substantial part of the large barley crop has already been sold into export, and shipments during the 1979 export season may reach about 2.5 million tons. Exports of oats are expected to rise significantly over the year-earlier level, but the bulk of the crop will be retained for onfarm feeding.

The large barley and oat crops have provided adequate feed supplies for domestic use, and consequently few farmers have retained any General Purpose or Feedgrade wheat this year.

Production of summer feedgrains is uncertain, as late plantings of sorghum were made well into January. Present conditions indicate a sorghum crop of about 1.2 million tons, and a corn harvest of about 140,000 tons.

Most of the corn crop will be used domestically, but sorghum exports to Japan during the current marketing year could reach 700,000-800,000 tons.

The 1979 rice crop also may reach a record high. Latest estimates indicate a crop of about 632,000 tons (paddy), of which 620,000 tons are expected to be harvested in New South Wales. Production in the 1977/78 season was an estimated 487,000 tons.

The 1979 marketing year is the last to be covered by the current wheat stabilization program. The Australian Wheatgrowers' Federation and the Federal Government have been negotiating a new program to extend over the next 5 years.

The new plan is expected to incorporate some significant changes, with a larger first advance payment one of the features.

If weather conditions are favorable, a large crop may again be harvested in the coming season, which could create serious handling and storage problems—particularly in New South Wales. □

*Continued from page 13*

percent and 4 percent, respectively, over 1977 production. Sheep and goat meat registered a poor 1 percent growth.

Combined socialized and private sector egg production exceeded the plan by 2.9 percent and totaled 64.4 billion eggs. No official figures have been released for poultry meat production, but it is estimated to have reached 2 million tons (slaughter weight).

It is surmised that the main problems in the cattle-feeding sector were the poor quality of the grain and some hidden shortfalls. Serious grain shortages were probable in the virgin lands and other east-central areas where 1977 grain and roughage crops failed. It is probable these short feed supplies were supplemented by imported grains.

With ample moisture in most growing regions, Soviet grain output in 1978 was a reported 235 million tons, against a planned level of 220 million tons, easily surpassing the previous record of 224 million tons in 1976.

One major drawback concerning the 1978 grain crop was the reported imbalance in production of rice, buckwheat, rye, and high energy feedgrains. Output of corn (9.0 million tons) and rice (2.1 million tons) was below plan. Additionally, production levels of buckwheat, pulses, millet, and rye have drawn repeated criticism.

Despite an apparent increase of 35,000 hectares in the area sown to rice, production slipped to 2.1 million tons, more than 100,000 tons below 1977 output. Again the weather was a factor in the falloff and the crop reportedly matured 2-3 weeks late in the southern rice-growing areas of the Ukraine and the Russian Federation.

Sugarbeet output was a disappointing 93.8 million tons, slightly above the 93.1 million tons of 1977, but almost 3 million tons below plan. The Ukraine, contributing about 60 percent of the total crop, produced 56.1 million tons against output of 55.5 million tons in 1977.

Weather-depressed sunflowerseed production in 1978 was just 5.31 million tons. Sunflowerseed is the USSR's most important meal and oil source, so production of both of these was lower than in 1977.

The cotton crop, which provides both fiber and seed, was 8.5 million tons in 1978, second to the record 1977 crop. An earlier production estimate had been larger, but adverse weather reduced yields in the various cotton-producing areas.

The big surprise in 1978 was the output of 758,400 tons of long-staple cotton. While this does not represent achievement of the production plan's target, (813,000 tons), the crop was expected to be much smaller because of the adverse weather.

Major tobacco problems also stemmed from poor weather, and output was 275,000 tons (cured leaf), 1,500 tons short of the production target. As a consequence, the Government tobacco procurement shortfall is expected to be some 40,000 tons. It is also likely that tobacco may be of less than average quality.

As in previous years, an increase in cigarette tobaccos probably means a decline in the already small area devoted to specialty tobaccos and a slight expansion at the expense of other crops.—*Based on report by Alan W. Trick, U.S. Agricultural Attaché, Moscow.* □

**Canada**

# Canadian Farm Trade Up, Despite Economic-Transport Problems

Canada—a leading U.S. agricultural trading partner and competitor — boosted both its farm imports and exports last year, despite economic and logistical restraints. But the country continued to be plagued by some troublesome problems, including inflation, unemployment, and a weak currency.

Generally large crops last year made Canada's trade gains possible, and so far a relatively good 1979 season is in prospect. However, farmers are unhappy about incomes that are not keeping pace with production costs. Export prospects, likewise, have been dimmed by port and rail tieups and rising demurrage charges, which already have reduced the outlook for grain sales.

As in the past, Canada continues to depend on the United States for the largest share of its farm imports—last year receiving 58 percent of such imports from this country. Canada, in turn, ranked as the fourth largest market for U.S. farm products, taking $1.6 billion worth, compared with $1.55 billion worth in calendar 1977.

Canadian trade statistics show the following trends in major imports of U.S. commodities.

• Imports of U.S. soybeans totaled 261,000 tons in 1977/78 (July-June) and are expected to continue at the same rate in 1978/79, unless new crushing facilities in eastern Canada need a larger volume of U.S. soybeans; imports of soy-

bean meal also are holding near the 1977/78 level of 367,000 tons.

• In calendar 1978, the United States supplied only 17.0 million pounds of its 25.12-million-pound share of Canada's import quota for fresh or frozen beef and veal—as opposed to more than 60 million pounds each from Australia and New Zealand. The total import quota increased 5 percent to 155 million pounds in 1979.

• Imports of U.S. fresh and processed fruits, nuts, and vegetables reached about Can$800 million[1] in 1978—up more than 15 percent from 1977's.

• A sharp decline took place last year—and another is expected this year—in imports of U.S. pork.

• Following the April 1978 easing of PBB-residue restrictions on imports of beef or live cattle from Michigan, imports of U.S. live cattle were resumed. Imports in 1978 are estimated at 48,000 head, with virtually all occurring after April, against only 9,847 head in 1977.

• Imports of U.S. table eggs rose to more than 6 million dozen—60 percent above 1977's—following late-season relaxation of the 3.098-million-dozen quota on table egg imports. For 1979, import quotas are expected to remain near the 1978 level.

• Imports of U.S. broilers, turkeys, and other poultry products increased from their 1977 levels.

Canada's agricultural exports last year are estimated to have reached a record Can$4.7 billion, compared with Can$4.3 billion in 1977. This represents the ninth straight year of record or near-record farm exports. But with imports rising faster than exports, the country's farm trade surplus declined for the second year in a row.

The U.S. market continued to be an important outlet for Canada, taking about 16 percent of that country's farm exports. It thus ranked as Canada's third largest farm market next to the European Community (21 percent) and Japan (18 percent).

Shipments of grains and oilseeds — accounting for more than half the country's agricultural export earnings—reached 20.2 million tons in 1977/78 (Aug.-July), the second highest on record. Early in the season, it looked as if exports would surpass the 1972/73 high of 20.5 million tons, but logistical problems forced delays in shipments of 800,000 to 1 million tons. These transportation problems are continuing in 1978/79, with the result that grain and oilseed exports are forecast some 2 million tons below those of 1977/78.

Inability to meet sales deliveries — with resulting deferments of shipments—has been a much-studied and discussed issue in western Canada recently. Its successful resolution will be necessary if Canada is to achieve the 50-percent increase in grain/oilseed exports targeted for 1985.

Meanwhile, the country is pushing ahead in its effort to expand trade. Recently, it concluded an agreement with China to supply that country up to 10.5 million tons of wheat during a 3-year period beginning August 1, 1979. Canadian grain shipments to China during 1977/78 totaled 3.5 million tons.

Among the largest percentage gainers in this trade last year were corn exports, which nearly doubled their 1976/77 level to reach 323,000 tons as Cuba emerged as a major Canadian market.

Rapeseed is seen as a big percentage gainer for 1978/79, with export volume expected to exceed that of barley for the first time. Rapeseed will thus move into second place behind wheat as an export earner.

During 1977/78, wheat shipments (not including Durum) stood at 13.3 million tons, compared with 11.0 million in 1976/77; and barley sales, at 3.3 million against 3.6 million. Durum wheat shipments totaled 2.0 million tons, compared with 1.7 million.

Canadian exports of all major fruits and vegetables, with the exception of fresh potatoes, rose in 1978, reflecting attractive export prices following declines in value of the Canadian dollar.

Shipments of tobacco and tobacco products likewise gained sharply—by more than 50 percent from 1977's—to an estimated Can$110 million. Larger sales of flue-cured tobacco accounted for the increase, in response to an export rebate program and the lower value of the Canadian dollar.

Shipments of beef and veal to the United States fell 26 million pounds short of Canada's quota of 88 million pounds under this country's Meat Import Law. An estimated 185,000 head of slaughter cattle over 700 pounds—mostly cows—were exported to the United States in 1978.

Canadian exports of pork to this country rose sharply last year. Increased Canadian pork production in 1978 and a lower value Canadian dollar contributed to the increase.

For 1979, pork shipments to the United States probably will decline from the 1978 level. Exports to the important Japanese market will be influenced by pork-industry trends in Japan, performance of the Canadian dollar, and success of Canadian provincial marketing boards in selling to the Japanese on a spot basis.

Canada produced 45.1 million metric tons of grain and oilseeds in 1978—its second best showing following a record crop of 46.1 million in 1977. Wheat output also was the second highest in history, at 21.15 million tons against the 1976 record of 23.6 million. Barley production rose to 10.4 million tons from the 9.9 million of 1977. And rapeseed — the Cinderella crop of recent years—soared 76 percent above the 1977 level to 3.4 million tons.

Among other crops, apple production rose 10 percent from the 1977 level to an estimated 453,509 tons; most other fruit crops either matched or surpassed their 1977 levels—the major exceptions being pears and cherries; results for most vegetables were better than in 1977; and flue-cured tobacco production reached one of the highest levels on record—an estimated 112,491 tons.

Beef production declined 8.5 percent in 1978 and will probably drop again in 1979 and at least 2 years beyond, as herd rebuilding takes place. Pork production is continuing to expand—particularly in eastern Canada. Hog marketings during 1979's first half are expected to average 10-12 percent above those in the 1978 period. Poultry production should also be up, with a 7-8 percent rise seen for chicken production and as much as a 15-percent jump forecast for turkey output.—*Based on a dispatch from Clancy V. Jean, U.S. Agricultural Attaché, Ottawa.* □

[1] *Average value of the Canadian dollar in 1978 was US$0.8799.*

West Germany

# Oilseeds, Grains, and Produce Lead U. S. Sales to West Germany

West Germany remains one of the largest customers (ranking fifth) for U.S. agricultural products — primarily oilseeds and products, grains and rice, tobacco, and fruits and vegetables. U.S. agricultural exports to West Germany dropped slightly to $1.502 billion in calendar 1978, compared with $1.656 billion the previous year, according to U.S. Census Bureau data. (Data not adjusted for transshipments. If transshipments were included, West Germany would rank second as a market for U.S. agricultural products.)

U.S. exports of oilseeds and meal (West Germany's largest U.S. agricultural import item) were both up in 1978, reaching 1.556 million tons and 1.098 million tons, respectively. This compares with 1.506 million tons and 976,890 tons, respectively, exported to West Germany in 1977.

Sunflowerseed exports to West Germany were up almost 47 percent in volume to 270,306 tons in 1978, compared with 183,963 tons in 1977.

Although U.S. exports of sunflowerseed were up substantially, the U.S. share of the West German sunflowerseed market during the past 2 years slipped from 80 percent (fiscal 1977) to 76 percent (fiscal 1978), primarily because of Argentina's entry into the German market with sunflowerseed oil.

U.S. market shares for soybeans, sunflowerseed, and corn in 1978 were relatively high. But the U.S. share of soybean meal fell to an historic low last year, reflecting considerably larger shipments of soybean meal (largely of U.S. origin) from the Netherlands.

West Germany's agricultural import situation in 1977/78 was highlighted by a drop in corn imports to about normal levels. U.S. corn shipments to West Germany during 1977/78 (October-September) fell to 1.379 million tons, compared with the 2.921 million exported in 1976/77. The exceptionally large shipments of 1976/77 were the result of a poor Euopean Community grain crop.

U.S. wheat exports to West Germany were up, reaching 216,000 tons during 1977/78 (June-May), compared with 130,000 tons in 1976/77.

The total value of German imports of U.S. grains and rice during 1977/78 (October-September) was $387.9 million, compared with $599.8 million in 1976/77.

U.S. exports of unmanufactured tobacco found their third largest world market in West Germany. U.S. exports fell to 24,125 tons in 1978, valued at $90.395 million, compared with 35,767 tons, valued at $121.204 million, in 1977.

Although the volume of U.S. tobacco exports to West Germany was lower last year than in 1977, it is believed that Germany apparently is transshipping tobacco through the United Kingdom; therefore trade figures may be somewhat distorted.

The value of U.S. exports of cotton to West Germany was up sharply in 1977/78 to $21.031 million, compared with $13.712 million a year earlier.

The value of German imports of U.S. fruits, vegetables, and related products was also up substantially in 1977/78 to $138 million, compared with $114 million in 1976/77.

The outlook for agricultural trade between the United States and West Germany in 1978/79 is one of growth—perhaps by $150 million—according to the Office of the U.S. Agricultural Attaché in Bonn. Moderate gains are expected in imports of U.S. soybeans and meal, sunflowerseed, corn byproducts, fruit, cotton, and furskins.

Only a small part of the additional supplies from the bumper 1978 West German grain crop can be disposed of in livestock feeding. As a result, imports of grains in 1979 will have to be reduced and there are indications that subsidized grain exports under European Community (EC) programs will be expanded.

It is likely that shipments of U.S. corn will decline further. However, the loss is expected to be balanced by larger requirements for U.S. high-quality wheat because of the relatively low quality of the domestic 1978 spring wheat crop.

Some sources predict that the United States, which continued its comeback in the West German cotton market during the first quarter of the current marketing year, may become the second largest supplier to the German market, surpassed only by the USSR.

Provided the United States can supply enough medium- and high-grade cotton at competitive prices, trade sources expect it to capture about 10 percent of the German raw cotton market in 1978/79.

Increased use of soybean meal, corn byproducts, and tapioca, as well as stagnating grain consumption, has been one of the major issues in West German and EC farm policy discussions.

This area is also of vital interest to the United States because the group of commodities affected account for almost two-thirds of U.S. agricultural exports to West Germany.

On the whole, the year 1978 was a good one for the West German economy. After a slow start in early 1978, it experienced an upswing, particularly in the second half of the year.

For the entire year, the real gross national product rose by 3.4 percent, slightly

above the 2.6 percent gain of 1977. The relatively good economic result was achieved with an inflation rate of not more than 2.6 percent—the lowest year-on-year increase since 1969.

In agriculture, West German farmers harvested the largest grain crop in history. At 23.9 million tons, production was 11 percent above that of 1977 and 13 percent greater than the 1974-77 average. Primarily the result of record yields, the increase was particularly great in feedgrains (barley, oats, and other winter grains).

Although grain corn areas have been expanded, corn output still accounts for less than 3 percent of total domestic grain supplies.

In general, German spring wheat in 1978 was not a typical, high-quality wheat. A large part of the crop is not suitable for blending with soft wheat. Unfavorable weather resulted in low protein content and in starch damage.

Rapeseed—the only commercially grown West German oilseed crop—accounts for less than 5 percent of total oilseeds crushed by German mills. However, the shift to low erucic acid varieties has spurred area expansion and the 1978 rapeseed crop rose to 331,000 tons, compared with 282,000 tons in 1977.

The EC's quota system resulted in a reduction in West German sugarbeet area in 1978 to 412,000 hectares. However, because of relatively high yields, the 1978 sugarbeet harvest—at 19.11 million tons—is estimated to be only slightly below the average of the previous 3 years.

Farmers in West Germany responded to low 1977 potato prices by cutting areas by 11 percent in 1978. Also reflecting high yields, total production was down by 8 percent to 10.5 million tons.

The outlook for agricultural production in 1979 is for relatively unchanged areas of grain, potatoes, sugarbeets, and forage crops.

Rapeseed area is reported to have been increased by about 10 percent.

In the livestock sector, West German milk cow numbers remain unchanged, as they have for the past few years. Nevertheless, breeding has resulted in a continuous improvement in efficiency. Long-term crossing of German cattle with U.S. and Canadian Holstein-Friesians by imported semen contributed significantly to this development.

This herd improvement has raised milk yields by about 1 percent annually. Total milk production was up 3 percent in 1978 to 23.2 million tons. The above-average expansion in 1978 was largely the result of excellent pasture conditions and increased use of cheaply purchased dairy feed.

Beef and pork output increased 5 percent in 1978 to 1.435 million tons and 2.530 million tons, respectively, in 1978. Chicken flocks were slightly reduced, but the effect of lower layer numbers (60 million head in 1978) was partly offset by improved egg yields per hen. Meat supplies from domestic animals in 1979 are expected to rise to record levels.

Increases in West German per capita food consumption in recent years have been limited virtually to pork, cheese, and vegetables. Beef picked up slightly, while poultry, eggs, total fats and oils, sugar, and grain products have been stagnating.—*Based on a report from the Office of the U.S. Agricultural Attaché, Bonn.* □

## South Korea

# A First: U.S. Farm Exports to Korea Top $1 Billion

Of the eight export markets buying more than $1 billion worth of U.S. farm products in 1978, Korea was in sixth place with purchases of $1.15 billion, some $221 million more than in 1977. This is the first time Korea has hit the $1-billion mark.

The United States was virtually the only source of supply for Korea's imports of wheat, corn, and soybeans, and the major source for tobacco, soybean meal, livestock, tallow, hides, and cotton. Korea plans to boost its purchases of most of these products in 1979, and the United States will again be a major supplier.

One factor which favors the continued rise of Korea's imports of agricultural and livestock products is the Government's program emphasizing liberalization of imports of primary products for industry.

Most recent tariff cuts were in February, and included wheat, cotton, soybeans, and tallow. At the same time, import quotas were lifted on several agricultural items, including mutton, butter, cheese, malt, cottonseed oil, and molasses.

Korea's domestic wheat production supplies only about 2 percent of the country's needs, and U.S. imports fill the gap.

Total imports of U.S. wheat in 1978 were 1.58 million metric tons, 20 percent less than in 1977. The drop was largely because of a rise in rice consumption resulting from more intensive promotional activities and a Government ban on the use of wheat by the brewing industry.

Korea's import plans call for 1.75 million tons of wheat to be brought into the country in 1979, 10 percent more than in 1978.

Korea's corn imports from the United States in 1978 totaled 1.79 million tons, a 31 percent climb over those of 1977, largely owing to increased demand for corn in formula feed for livestock.

Nearly all of the imported

corn was used by the feed industry, although a move to utilize large volumes of sorghum in formula feed may reduce corn's predominance as a feed ingredient.

The import plan calls for a rise of 32 percent in the amount of corn imported in 1979, bringing the total for the year to 2.36 million tons. A long-range feed production plan, established in May 1978, seems to insure that corn imports will remain high after 1979.

The plan calls for formula feed production to rise from 2.50 million tons in 1978 to 2.96 million in 1979, and to continue upward to 11.1 million tons by 1991. It is estimated that 60-63 percent of the 1991 formula-feed figure will consist of feedgrains, equivalent to about 7 million tons. Much of this total probably will be U.S. corn.

Korea's 1978 soybean imports from the United States are estimated at 281,400 tons, up 112 percent from the 1977 level. About 207,400 tons were imported for crushing, 32,000 tons for food, and 42,000 tons for price control purposes. The main reason for the large import rise between 1977 and 1978 was a sharp increase in animal feed requirements.

As demand for meat and dairy products is expected to climb strongly, the Government of Korea is emphasizing development of the livestock sector, which will, in turn, create a tremendous demand for feedgrains, particularly soybeans and corn.

The Korean Government projects a 31 percent rise in import requirements for soybeans in 1979 to 370,000 tons, including 270,000 tons for crushing, a 30 percent rise over the 1978 crushing level. The Government's long-range livestock development plan projects a soybean import requirement for feed of 290,000 tons in 1979, 637,000 tons by 1986, and 1.09 million by 1991.

There are no plans to import soybean meal in 1979, although in 1978 such imports totaled 55,000 tons —35,000 tons from the United States and 20,000 tons from Brazil.

Korea is both an importer and exporter of tobacco, and the United States supplies much of its tobacco imports and buys a share of its exports. In 1978, Korea imported 11,069 tons of leaf tobacco, including 3,629 tons of U.S. flue-cured, 1,329 tons of U.S. burley, and 50 tons of U.S. cigar leaf. It also imported leaf from Turkey, Greece, and Yugoslavia.

Korea's leaf tobacco exports to the United States in 1978 were just 1,200 tons, 67 percent less than in 1977, a drop caused by a stronger demand for Korean leaf by other countries.

The United States took about 2 percent of Korea's exported leaf and supplied 45 percent of its leaf imports. Plans for 1979 call for imports of about 12,000 tons of leaf.

Livestock import plans for 1978 called for the purchase of 25,000 head of dairy stock, 15,000 head of beef breeding animals, and 3,000 head of breeding swine. However, lack of quarantine facilities kept imports down to 21,800 head of dairy animals, 13,000 head of beef animals, and about 2,000 head of swine. Expanded quarantine facilities are under construction near Inchon and should alleviate the situation.

The United States provided 17,000 head of the imported dairy stock, 1,000 head of the beef breeding cattle, and 1,600 head of the swine.

Plans call for the import of 90,000 head of dairy breeding cattle between 1979 and 1983, including 21,000 head in 1979. Two thousand head of breeding swine are scheduled for import in 1979, and 10,000 head of beef breeding cattle are to be imported each year, 1979-1986.

Korea's estimated imports of tallow in 1978 were 161,000 tons, 4 percent more than in 1977. The U.S. share in 1978 was 46 percent, compared with 59 percent in 1977, the drop being laid to the high price of U.S. tallow.

Eighty percent of Korea's imports of raw hides, estimated at 158,200 tons, came from the United States. Whereas the U.S. share was only slightly higher than in 1977, the total was 34 percent greater.

In addition, Korea also imported some 21.2 million square meters of leather, worth $110.4 million in 1978, a 10 percent rise over the 1977 total. The U.S. share of these imports was just 30 percent; the major share came from Japan.

Industry sources indicate that import requirements for raw hides in 1979 are expected to be about 189,000 tons, 20 percent greater than the 1978 figure.

In Korea, locally produced hides are consumed for manufacture of domestic-use products and imported hides are used for manufacture of export goods. However, the high price and reduced profitability of items made of imported hides caused Korean leather goods manufacturers to refuse to accept many overseas orders reducing expected income.

The Korean cotton textile industry enjoyed an unusual export boom in 1978 and an accompanying strong domestic demand for cotton products. These impetuses caused raw cotton imports to jump 34 percent over the 1977 level to 1.3 million running bales. Although the U.S. share was the same in both years —97 percent—the surge in demand brought raw cotton imports from the United States in 1978 to 1.26 million bales.

The cotton textile industry anticipates a continuation of the present export boom into the second half of 1979, which could generate raw cotton imports at the same level as in 1978.

Some of the increases in Korea's farm product imports in 1978 arose from a poor agricultural year, opening with a spring drought and ending with a wet summer. This combination of factors caused production of a number of crops to tumble and forced increased imports of some basic food commodities.

Rice production was down 3 percent to 5.79 million tons, largely because of the poor weather, but also because of disease problems. The production target for rice in 1979 is 6.05 million tons, the same as in 1978. Korea has no plans to import rice in 1979, but it may export rice if the crop is large enough. In 1978, Korea exported 80,000 tons of rice to Indonesia on a loan basis.

Barley production in 1978 was 1.34 million tons—66 percent more than in 1977, but 27 percent less than in 1976. The grain's production target in 1979 is 1.39 million tons, 4 percent larger than the 1978 level.

Because the Koreans prefer to eat rice rather than barley, it is not expected that barley production will rise by much.

In 1978, barley area was greater than in 1977, but winterkill forced farmers to convert barleyland to cash crops such as tobacco and vegetables.

The Korean Government

has for some years been trying to get farmers to increase wheat production, but in 1978 output—at 35,705 tons—was down 20 percent from the 1977 level. In 1979, the Government will again encourage farmers to boost wheat output and has set a target of 90,000 tons, a 150 percent increase over last year's production.

Production of corn in 1978 was a record, contrasting markedly with the production level for the other grains. Corn output was estimated at 138,100 tons, a rise of 22 percent between 1977 and 1978. Corn consumption also is climbing so that even with the current high level of production, the corn crop is under severe pressure.

Korea's production plan calls for corn output to rise to 155,000 tons in 1979.

Korea's soybean output was 293,000 tons in 1978, 9 percent less than in 1977. Production is slated to rise 20 percent to 351,000 tons in 1979.

Much of Korea's soybean production went to feed the country's cattle herd which was estimated at 1.73 million head at the end of 1978, a rise of 7.5 percent over the 1977 level. The number of swine also was larger by 41 percent, reaching 2.08 million head. Further gains are expected as the current strong demand for beef, pork, milk, and milk products is seen continuing.

Estimated meat production in 1978 totaled 367,900 tons, a gain of 16 percent over the 1977 level, but even this level of output was far short of demand. The production shortfall prompted imports of 56,850 tons of beef and 10,000 tons of pork in 1978.—*Based on report from Gerald W. Shelden, U.S. Agricultural Attaché, Seoul.* □

# U.K. Farm Output Rises, But U. S. Share of Market Gains

Although its net agricultural product rose 4.5 percent last year, the United Kingdom remained one of the leading U.S. farm markets. U.S. agricultural exports to the United Kingdom in calendar 1978 totaled $1.05 billion, compared with $874 million during calendar 1977.

Despite this rise in farm production, net farm income dropped 3.5 percent in money terms and 11 percent in real terms. Checking inflation remains one of the country's major tasks. The inflation rate in December 1978 was 8.4 percent, compared with 12.2 percent a year earlier, but current large wage demands could push the rate up to 10-15 percent by late 1979.

Within the U.K. agricultural sector and adjusting for transshipments, the proportion of total farm imports from the European Community (EC) rose from 36.5 percent in 1977 to 39.7 percent in 1978, emphasizing the increasing dominance of the EC as the U.K.'s largest supplier. Nonetheless, the U.S. share of the British farm market gained last year, rising from 11 percent in 1977 to 12.1 percent of imports from all sources. (The United Kingdom is not exporter.)

The good U.K. grain crop and relative stagnation in the livestock industry resulted in a drop in feedgrain imports—particularly of U.S. corn. However, the U.S. share of many U.K. farm imports was well maintained in 1978, especially for wheat, soybeans, leaf tobacco, cotton, pulses, and edible offal.

Looking ahead in 1979, if the weather is normal during the year's first half, a crop pattern similar to that of 1978 is a strong possibility. And if crop production is fairly close to 1978's level, the depressed import demand for cereals could continue to adversely affect U.K. imports of U.S. corn and sorghum.

As a result of the increased grain production, a 17 percent drop in U.K. grain imports is forecast for 1978/79, giving a net reduction of 2.5 percent in disposable grain supplies.

Largely because of the sharp rise in supplies of home-grown feedwheat, imported grain for feed is expected to be only 1.88 million tons in 1978/79 or 16 percent of total requirements, compared with 21 percent in 1977/78 and 35 percent in drought-affected 1976/77. The impact on grain imports destined for feed use has been mainly on corn, which is produced only in negligible amounts in the United Kingdom.

Feed use of corn in 1978/79 is forecast at only 1.4 million tons, 19 percent lower than that of 1977/78 and 45 percent under the 1976/77 level. This season, corn will account for only 12 percent of the grain used to feed animals, compared with 14.5 percent in 1977/78 and 21 percent in 1976/77. On the other hand, feed use of wheat is expected to reach 3.38 million tons or 29 percent of total requirements, compared with 26 percent in 1977/78 and 21 percent in 1976/77.

Favorable weather last year was a major factor for the improved crop production, especially in grains. Grain area was up 3.5 percent from the previous year and total outturn reached 17.43 million metric tons, 4 percent above that of 1977 and 31 percent greater than the drought-afflicted crop of 1976. Increased use of high-yielding varieties and expanded area pushed wheat production up 25 percent to 6.59 million tons. Output of other grains fell slightly because wheat occupied land that would have been sown to barley and oats.

The rapid expansion in rapeseed continued last year in the United Kingdom. Production of rapeseed for

oil reached 156,000 tons, an increase of 10 percent from 1977's and 40 percent from 1976's output.

The livestock sector continues to dominate British agriculture with the gross output of livestock and products and milk accounting for 66 percent of the U.K. gross farm production in 1978. Nonetheless, 1978 was a year of mixed results in the livestock sector as the value of gross output rose only 10 percent from the previous year. Livestock numbers in mid-1978 showed a marginal gain from mid-1977, but were still lower—except for sheep—than the level 2 years earlier. Milk production rose 5 percent last year.

U.K. production of beef and veal, at 1.04 million tons in 1978, was virtually unchanged from that of 1977, and poultry meat output advanced 2 percent to 778,000 tons. In mid-1978, there were signs that the downward slide in pork production was coming to an end, but for the whole year pork output was 905,000 tons, nearly 6 percent less than that of 1977, but 2 percent greater than in 1976.

Turning to the major commodities, British imports of U.S. wheat, adjusted for transshipments, jumped almost threefold to 304,000 tons last year, but those from Canada and the EC continued to dominate.

However, the sharp fall in U.K. corn imports from 3.5 million tons to 2.9 million affected mainly those from the United States, whose sales fell from 3.4 million tons in 1977 to only 2.4 million last year.

On the other hand, increases in imports of soybeans and soybean meal were met mainly by larger shipments from the United States. U.K. soybean imports during January-November (adjusted for transshipments) rose nearly 15 percent to 1.2 million tons while those from the United States increased nearly 14 percent to 1.01 million tons. During the same period, the United Kingdom imported 392,000 tons of soybean meal (up 62 percent), including 194,000 tons from the United States (up 252 percent).

U.K. imports of leaf tobacco during the first 11 months of last year rose 66 percent from the comparable 1977 period to 214,000 tons as imports of U.S. leaf tobacco expanded fourfold to 83,000 tons. These figures are highly misleading, however, because British re-exports of tobacco during this period skyrocketed to 39,000 tons from 4,460 a year earlier, thus, reducing net imports to 175,000 tons. While impossible to determine, it is believed that most of these re-exports were U.S. leaf.

The United Kingdom imported 94,000 tons of raw cotton during January-November 1978, up 3,000 tons from the year-earlier level. Most of the increase came from Turkey as imports of U.S. raw cotton remained unchanged at around 14,000 tons.

The United States does not play a major role in the United Kingdom's very large imports of livestock, meat, and dairy items, which are supplied largely by the EC—especially Ireland and Denmark—and, in the case of butter, by New Zealand through special provisions.

However, one sector in which the United States has an important stake is that of edible offal, with imports from the United States rising 27 percent to 38,000 tons during January-November. *Based on a report from the Office of U.S. Agricultural Attaché, London.* □

# Italy

# Italy Is Another $1-Billion Market for U. S. Farm Products

Spurred by good weather, buoyant demand for food, and an increase in production inputs, Italy's agriculture registered a 3-percent gain in production in 1978, the first in 2 years. U.S. agricultural exports to Italy were also up in 1978, reaching $1.0 billion and making Italy the eighth largest market for U.S. farm products, led by increases in imports of U.S. oilseeds and meals, grains, tobacco, and hides and skins.

Italy's total agricultural imports continued to expand in 1978, reaching a record $11.5 billion. Most of the gain occurred in the grain and livestock sectors. Italy's farm exports climbed to $4.2 billion as a result of increased shipments of rice, wine, and tomato products. The overall agricultural trade balance showed a record deficit of $7.3 billion.

In trade with the United States, value was up 24 percent in 1978. Oilseeds and meal accounted for 40 percent of the total, reflecting substantial gains in volume for soybeans and soybean meal. Grain accounted for another 30 percent, as shipments of wheat and corn expanded strongly.

The value of U.S. tobacco exports to Italy reached $78 million because of increased prices. Cattle hide exports totaled $34 million, while cotton shipments climbed to $33 million. Dried fruit exports nearly doubled in value, totaling more than $10 million.

U.S. imports of Italian agricultural products jumped sharply during 1978 to $281 million, led by a 68-percent increase in wine trade to $180 million. Most of the rest of Italy's food exports to the United States consisted of cheese ($26 million), olive oil ($19 million), canned tomato products, and pasta.

Italy's crop production rose by about 1.7 percent in 1978 as a result of good

crops of grains, sugarbeets, grapes, and tomatoes. Dairy livestock and poultry output expanded by 4 percent.

Compared with recent years, Italy's 1978 farm output will be very near the record year of 1975. One trend worth noting is that livestock production has consistently outperformed crop production over the past two decades, slowly propelling Italian agriculture towards the animal: crop production ratio of northern Europe. In 1978, livestock accounted for nearly 45 percent of the value of total agricultural output, compared with 40 percent a decade earlier.

(For the European Community, as a whole, livestock production accounts for 60 percent of total agricultural output.)

Italy's agricultural policy continues to be dominated by the EC's Common Agricultural Policy. During 1978, Agriculture Minister Marcora worked to encourage the reduction and dismantling of the Monetary Compensatory Amounts (MCA's), which tend to encourage imports of agricultural products from the rest of EC at the expense of Italian farmers.

The Italian Government continued its policy of maintaining the value-added tax on some agricultural imports in order to offset partially the negative effects of the MCA's. The prospect of EC enlargement continued to trouble Italian farmers, but the country's negotiators are trying to soften its impact.

Italy's total 1978 grain crop (including rice) reached about 17 million metric tons, the second largest crop on record. Wheat production jumped sharply to 8.9 million tons, compared with 6.2 million in 1977. The 1978 corn crop, however, fell from the record 6.39-million-ton level of 1977 to 5.9 million tons in 1978 as some land was shifted back into wheat.

Barley production—at 790,000 tons—climbed to an unprecedented level in 1978 because of substantial increase in yields and good prices. Barley is becoming an increasingly attractive alternative to soft wheat and a competitive feed alternative to corn.

Rice production also increased sharply to 979,000 tons in 1978 following a poor 1977 season.

Italy is a substantial importer of grain. Total imports in 1978 reached slightly under 8 million tons —down from 1977's record 9.2 million tons. Wheat imports in 1978/79—at 2.4 million tons—will be off from the record level of the previous year. All of the gain is occurring in soft wheat imports, while Durum imports will be below the recent trend.

This tilt in the import pattern will be against U.S. wheat. The soft wheat market has been dominated by France during the past 2 years; the United States has been only a distant third or fourth in the market. Given the abundance of soft wheat in the European Community this year, little, if any, growth can be expected for the U.S. market share. For Durum wheat, a smaller import market means U.S. wheat faces tougher competition fom Canadian and Argentine shipments.

Feedgrain imports will be up in 1978/79, but the pattern will change as corn imports are below traditional levels and barley imports increase. This shift, too, may cause a tilt against U.S. feedgrains.

Two trends worth noting: Although Italy's total grain supplies increased in 1978, imports accounted for only about 32 percent, slightly below the 1972-76 average. This is an impressive performance considering that livestock production has been growing at an annual rate of about 4 percent in the 1970's. Also, the EC is playing an increasingly important part in supplying Italy's grain requirements.

Italy has a major deficit in vegetable oils, and as a result, imports of oilseeds and seed oils supply most of the country's oil and protein needs. Soybeans are the most important imported oilseed, accounting for about three-fourths of the crushing industry's input. In 1978, imports of soybeans increased about 13 percent, while soybean meal imports climbed by over 25 percent. This strong upswing reflects the tremendous price appeal soy protein has for livestock and poultry feed manufacturers.

The United States is the major supplier of soybeans and meal for the Italian market. In 1978, U.S. soybean exports to Italy remained near the 1977 level of 800,000 tons; meal shipments climbed substantially—up nearly two-thirds to a record 725,000 tons.

Imports of soybeans and meal should expand in 1979, but at a much slower pace, as the expected cutback in Italian hog production should dampen demand from the feed industry.

Since 1978 was an off year for Italian olive oil production (down 39 percent to 420,000 tons), 1979 production will most likely be up. The prospect for a large crop is not particularly good news for producers—stocks are at record levels and demand stagnant. Increased supplies could only burden the market further.

The real value of livestock, dairy, and poultry production reached a new record in 1978—the 15th straight year of expansion. Production of meat, milk, and eggs all attained new heights.

Italy is heavily dependent on imported feeder cattle for a substantial part of its beef production. A shortage of feeders in France and West Germany created a new dearth of imports in 1977, which in turn caused a 4-percent dip in beef production in 1978. But the drop does not reflect the basic health of the cattle industry; indeed, both dairy and beef farmers enjoyed a good year.

Unlike cattlemen, Italy's hog producers suffered a year of crisis in 1978 as skyrocketing production created a depressed market. But producers have reacted quickly; sow slaughter has been heavy and total numbers have fallen by nearly 13 percent.

Italy is a major exporter of horticultural products. With vineyards widespread throughout the country, wine exports are particularly important. In 1978, they reached a record $500 million.

Exports of fresh fruit are Italy's major agricultural moneymakers, accounting for about 25-30 percent of total farm exports. Because of poor deciduous and citrus fruit crops in 1978, however, total exports will fall short of the $1-billion mark achieved in 1977.

Italy's exports of fresh vegetables have been fairly stable at the 800,000-900,000-ton level. Shipments of canned tomatoes and paste have almost doubled in 10 years, reaching 400,000 tons in 1978.

Total exports of fresh and processed vegetable products in 1978 should be near the 1977 level of $500 million—*Based on a report from Office of the U.S. Agricultural Attaché, Rome.* □

# Growth Potential Seen For Turkey's Livestock Industry

By Yusuf Z. Durusoy

Turkey, which has nearly twice as many cattle, sheep, and goats as people but relatively low levels of meat production and consumption, has many of the requisite elements for a major upgrading of its herds:

- Population is expanding rapidly (2.6 percent annually).
- Demand for red meat is increasing.
- Carcass yields are low, indicating a need for introduction of new breeding stock.
- Strong demand for red meat in Turkey's neighboring countries indicates a potential export market.

Although Turkey is short of foreign-exchange reserves, the sharp advances in Turkish meat prices during recent years may encourage the Government to import beef breeding cattle in an effort to improve domestic breeds and thus increase yields per animal. Should the Government take this step, U.S. suppliers of beef breeds could look to Turkey as a potential market.

Some Turkish companies are interested in importing beef breeding cattle, but are having difficulty in obtaining the necessary import licenses from the Government, which wants to conserve its foreign-exchange reserves.

Another obstacle to large-scale expansion of the industry is lack of capital. If producers had access to adequate credit, they could institute improved feeding programs and could produce more and better slaughter animals.

Such an expansion would enable producers to market their animals year-round instead of during the winter months, as is now the custom. Also, adequate supplies of credit would obviate the need for producers to borrow at extremely high rates and subsequently sell their animals to these lenders at very low prices, as is often the case at present.

A major step of benefit to cattle producers would be Government permission for imports of basic feed ingredients, such as corn, soybean meal, and fish meal. Adding these ingredients to mixed feed produced domestically would greatly improve quality and would result in increased yields per animal, which in turn would more than pay for these imports.

Other steps that might be taken by the Government to encourage livestock production include increased purchasing and expanded slaughter capacity by the Meat and Fish Organization (MFO), and production of more and better feed for finishing of slaughter animals. Also, Government assistance to improve pastures and forage production is needed.

Turkey has a very limited number of commercial feeders. Government encouragement for feeding operations and Government permission to import beef breeding cattle could spur use of modern feeding methods in Turkey, and also could lead to the development of export markets for slaughter animals and meat.

There is very little barn feeding in Turkey, as most animals are raised on pasture. However, most pastures—owned by regional or local administrations—tend to remain more or less permanently in poor condition as a result of overgrazing. Producers tend to crowd the pastures with as many animals as possible without regard to carrying capacity.

Domestic feed production —about 1 million tons annually—is insignificant for a country with a total livestock population of 15 million cattle, 42 million sheep, 18 million goats, 1 million water buffalo, and 50 million chickens and turkeys. Most feed is prepared on the farm.

Turkey's exports of slaughter animals and meat have been declining in recent years as strong domestic demand and rising prices have channeled supplies into domestic markets. In 1974, about 52,000 cattle, 230,000 sheep, and 290,000 goats were exported, but in 1978 only several hundred cattle, about 100,000 sheep, and 20,000 goats were exported.

Meat exports in 1974 were about 370 tons of beef, 6,300 tons of mutton, 100 tons of goat meat, and 2,800 tons of horse meat. In 1978, exports had fallen to about 1,000 tons of mutton and 2,000 tons of horse meat.

Despite Turkey's relatively high livestock numbers, total annual meat production is only about 700,000 metric tons because of low yield per animal.

On an annual basis, slaughter numbers and resulting meat production are: 13 million sheep (220,000 tons of mutton); 13 million lambs (100,000 tons of lamb); 3.5 million cattle and water buffalo (210,000 tons of beef and veal); 6 million goats (90,000 tons of goat meat); 35 million broilers, 19 million other chickens, and 1 million turkeys (80,000 tons of poultry meat).

In addition, about 100,000 tons of edible offal is produced and consumed annually. Meat production from hogs, camels, horses, rabbits, ducks, and geese is insignificant.

Sheep and lamb are Turkey's most important slaughter animals, accounting for about 53 percent of total red meat output. Fat-tailed domestic breeds—highly adaptable to local conditions — predominate, supplying the mutton fat that most Turkish consumers prefer to vegetable oils for cooking.

Normally, lambs account

**The author is an agricultural specialist in the Office of the U.S. Agricultural Attaché, Ankara.**

for only about one-third of total sheep slaughter, but the attraction of higher prices for lambs in recent years has resulted in boosting the share of lambs to about half of total sheep slaughter.

Laws prohibiting slaughter of very young lambs are often circumvented as the lure of high prices and farmers' needs for capital encourage premature slaughter of lambs.

Although beef's share of total red meat production in Turkey has been increasing in recent years, it still accounts for only about 35 percent of the total. There are few beef feeding operations in the country, and beef quality in general is poor because most of the slaughter animals are old oxen or unproductive dairy cows. Average carcass weight of these animals is only about 120 kilograms.

Beef grading is not practiced in Turkish beef marketing, and therefore quality is not fully considered when cattle are purchased from producers. Prices paid for slaughter animals are based only on age and dressing percentage — a policy that offers farmers little or no incentive to improve breeds and produce higher quality meat.

However, the opening of new supermarkets in Turkey's larger cities is generating a certain demand for better quality meat—a move that could be helpful in introducing improved beef breeding cattle in Turkey.

Goat meat amounts to only about 12 percent of total red meat production. Most animals are raised and slaughtered in small communities or forest areas, and an insignificant share of the output is sold in cities.

Broiler production has increased rapidly in recent years to help fill the gap between total supply and demand for meat. Broiler production started about 15 years ago and has reached an annual level of about 35 million birds.

Until about 5 years ago chicken meat was priced about 30 percent above mutton or beef, but the price has been declining gradually and now is 20 percent cheaper than mutton and beef.

Some average retail meat prices in Turkey (in U.S. dollar equivalent per kilogram): Beef (bone in), $3.60; mutton, $4.00; lamb, $4.40; and chicken meat, $3.00.

About 40 percent of Turkey's total red meat production comes from official slaughterhouses, which are under the supervision of municipalities or the MFO. About 760 municipal slaughterhouses produce about 75 percent of total registered meat output, and 20 MFO plants produce the remaining 25 percent.

The other 60 percent of total meat output is produced in villages and small communities without registration or conformity with sanitary control regulations. Slaughter on the farm is free from registration or control.

Some animals are killed outside the slaughterhouses to circumvent payment of municipal taxes and the effect of any applicable sanitary regulations. Although such practices are in violation of general trade and health regulations, they are difficult to eradicate because of the limited facilities that are available and the prevailing level of consumer education.

Marketing of slaughter animals and meat in Turkey is still at a relatively early stage of development. Animals for slaughter pass through many dealers or middlemen on their way from producer to consumer. Each dealer or middleman adds his profit to the cost. The producer's share is very low, which discourages increased production and results in short supplies and higher retail prices.

The Turkish Government in recent years has taken several steps to raise the total meat supply and to prevent unusual price increases. In 1977, the Government for the first time began purchasing slaughter animals at support prices from producers through the MFO. Also, the Ministry of Agriculture began emphasizing the production of forage crops and improvement of pastures, as well as increasing mixed-feed production.

In eastern Anatolia, where livestock production is an important industry, feeding and fattening projects are being developed and farmers provided with the necessary funds and technical assistance. Most of the funds needed for these projects are being supplied by the World Bank.

A cattle-fattening project is being carried out under the supervision of the Sugar Corporation. In 1978, about 300,000 cattle were fed by farmers under this project with the Sugar Corporation providing the necessary credit and technical assistance.

The intent of such measures is to encourage farmers to raise more and better slaughter animals. The finished animals are purchased at support prices by the MFO.

The Meat and Fish Organization, established about 25 years ago, operates about 20 plants throughout the country where animals are slaughtered and meat prepared for market. About 18 additional plants are scheduled to open during the next 5 years.

The MFO handles about 25 percent of the registered meat produced in slaughterhouses, which is only about 10 percent of the country's total production of red meat and therefore of limited market significance.

Most of the meat produced in MFO plants is sold fresh to butchers and retailers. A portion of the output is frozen and shipped to main consuming areas or stored for later use.

The MFO buys its slaughter animals under three different programs—from contract producers; from farmers, under fattening projects; or on the free market.

Meat requirements of Government agencies and institutions — the military, schools, and hospitals, for example—are supplied by the MFO, which also markets through its own retail stores—mainly in urban areas—at prices about 30 percent below the prevailing retail level.

Although the MFO's lower prices usually attract long queues of customers, its sales are not significant in relation to total retail meat sales.

The Meat and Fish Organization, like many other Turkish Government enterprises, has become a costly and inefficient operation. By overstaffing and selling its products at a loss—ostensibly to help consumers —it has incurred high costs that must be covered by the Government. And the continuing need for Government subsidies to cover the MFO's deficits precludes any chance for the MFO to stand on its own feet as an independent marketing agency. □

# Japan Modifies System Of Controls for Chilled Beef Imports

**By Gary Groves**

Changes in Japan's controls over imports of chilled beef—modified in August 1978—will permit increased returns for the quasi-governmental Livestock Industry Promotion Corporation (LIPC).

About two-thirds of Japan's chilled beef imports are affected by the modifications, which permit LIPC to maximize its profit margin on chilled beef imports by exerting downward pressure on importer prices and upward pressure on consumer prices.

The new system may benefit U.S. beef exporters by allowing more imported high-quality, grainfed beef. The United States is the primary supplier of high-quality beef, and Japan is by far the biggest market for U.S. beef exports.

Designed to stabilize Japan's domestic beef prices, the import-control system basically consists of continuing assessments by the Japanese Ministry of Agriculture, Forestry, and Fisheries (MAFF) of the domestic supply-demand situation, and MAFF's establishment of semi-annual beef import quotas.

MAFF allocations are made under a general quota and several special quotas, such as for international hotels and school lunches. In Japan's fiscal 1978/79 (April-March), the total beef import quota was 106,600 tons, of which the general quota was 90,000 tons.

About 90 percent of the general quota is allocated to LIPC (which has close ties to MAFF), and the remainder to the private trade. LIPC uses its allocation to stabilize domestic cattle prices. Prior to August 1978, LIPC imported beef under two systems—tenders, used primarily for frozen beef imports, and the so-called one-touch system, used mainly for chilled beef (*Foreign Agriculture*, August 28, 1978).

The system introduced in August replaced the one-touch system on about two-thirds of LIPC's chilled beef imports. After LIPC received its quota allocation from MAFF, it determines the breakdown between chilled and frozen beef according to domestic market needs. Chilled beef usually accounts for slightly less than half the total LIPC allocation.

LIPC then allocates the chilled beef among five enduser groups—the National Federation of Meat Retailers Associations, the National Federation of Doowa Meat Retailers Associations, the National Federation of Agricultural Cooperative Associations, Japan Meat Wholesale Markets Cooperative Co., Ltd., (covers Tokyo and 24 other major wholesale meat markets), and 2,300 individual retailers.

The one-touch system remains applicable for purchase and resale of chilled beef to the designated retailers, but the first four organizations now obtain their imports of chilled beef under the new system.

The new system is intended to increase competition among Japanese importers and endusers of imported chilled beef, thereby reducing their profit potential.

A tender method is used, whereby LIPC buys chilled beef from importers and simultaneously resells it to enduser organizations.

LIPC notifies both importers and user organizations of its plans for purchase and resale of chilled beef 2 to 3 months in advance of importation. Such notice provides the date for calling the tender, monthly total quantities, and items for purchase and resale. Tenders are called (i.e. bids are accepted or rejected) 10-15 days after issuance of these notices.

Before submitting bids to LIPC, enduser organiza-

**The author is an agricultural economist in the Dairy, Livestock, and Poultry Division, Commodity Programs, FAS.**

## *Japan: Show USDA Grade, NAMP Number*

Japan requires that export documentation for grainfed beef of U.S. origin list the applicable USDA grade, and the NAMP (National Association of Meat Purveyers) item name and number. U.S. Prime and Choice grades both qualify as grainfed beef.

Cuts designated by LIPC as eligible for inclusion in chilled, boneless, full sets and their compositional percentages by weight follow (NAMP numbers in parentheses): Chuck roll (116A), 10.7; shoulder clod (114) or shoulder clod roast (114A), 11.3; chuck, tender (no number), 1.1; ribeye roll (112), 5.4; brisket (120), 6.5; short plate (121A), 16.6; strip loin (180), 6.5; full tenderloin (189), 3.8; sirloin butt (182) or top sirloin butt (184) plus bottom sirloin butt (185), 10.2; inside round (168), 12.4; gooseneck round (170), 8.5; and knuckle (167), 7. Each compositional percentage may vary plus or minus 10.

The minimum quantity that may be bid for a tender is one containerload. For beef of North American origin, the quantity of one containerload of boneless full sets may range from 9 to 19 metric tons, while containerloads of full carcasses may range from 6 to 14 tons. Fractions of 1 ton are to be rounded up or down. □

tions usually consult with their members as to types and quantities of beef desired. LIPC-approved Japanese importers are contacted to obtain information on price and qualities available.

Bids to purchase beef must contain names of importer and enduser organization. Tenders must state the price at which the importer will sell to LIPC and the price at which the enduser organization will simultaneously purchase from LIPC.

In bidding for a tender, importers and user organizations are permitted to bid only up to fixed multiple (currently 125 percent) of the quantity allocated to each user organization—a provision intended to preclude excessive overbidding and ensure smooth operation.

LIPC establishes maximum purchase and minimum resale prices for each of four eligible items: Grainfed carcasses, grainfed boneless full sets (i.e., all 12 subprimal cuts), othergrade carcasses, and othergrade boneless full sets. LIPC keeps the prices secret.

In calling a tender, LIPC does not determine the breakdown in total purchase quantity for each of the four eligible items. The breakdown is determined according to the quantity of bids received from users for each item.

To do this, LIPC collects all bids on a tender, and calculates the ratio of the quantity bid in each item to the total quantity bid for all items.

As the total quantity bid often exceeds the quantity in the tender, the quantity is therefore allocated for each of the four items according to the share that each item represents of the total amount actually bid.

To determine which bids in each item will be approved, LIPC first examines bids to ascertain that purchase and retail prices are satisfactory according to LIPC's established—but undisclosed—maximum and minimum levels. Bids that do not meet these requirements are disqualified.

Bids for the same item that satisfy both maximum purchase and minimum resale price levels are selected in order, starting with the bid that gives LIPC the largest spread between the LIPC purchase price and resale price.

This selection process is continued among the remaining bids until the quantity allocated for that item is filled. If no bids for an item meet the maximum-minimum criterion, or if there are not enough bids to meet the allotted quantity, the remaining quantity of allocation for that item is divided among the other items.

In devising the system, LIPC attempted to retain the advantageous aspects of the one-touch system. In both the one-touch and the new systems, endusers can largely make their own decisions on preferred countries of origin, quality, packer brands, and products.

Shipping and delivery plans can be worked out among exporters, importers, and endusers to assure quick delivery of the product to endusers and maintain the quality of the product.

At the same time, LIPC retains control over the price and quantity by requiring all documentation to be channeled through its organizational structure. Any difference between the LIPC purchase price and the price to the enduser is profit for LIPC. Such returns are used for development and promotional activities in the domestic livestock industry.

The new program should allow for better access of high-quality beef in the Japanese chilled-beef market. In recent years, most of Japan's chilled beef imports have come from Oceania and consist of grassfed beef. In the past, the United States has supplied primarily frozen beef. The new program may offer opportunities for U.S. shippers of chilled, high-quality beef.

Part of the reason for the low U.S. performance in the Japanese chilled-beef market has been the LIPC guidelines on retail prices for chilled beef imported under the one-touch system. No distinction in these prices is made for quality, which puts grainfed beef at a considerable disadvantage. Endusers are able to obtain better returns on imported lean beef, which is lower in quality and price.

For beef imported under the new system, LIPC has removed retail price guidelines, which should allow for improved returns on grainfed beef to endusers of imported chilled beef and thereby encourage increased purchases of this type of beef.

Without the separate maximum purchase-minimum resale price that LIPC has established for grainfed beef and "other" (i.e., primarily grassfed beef from Oceania) beef, high-quality beef might be at a considerable disadvantage because bidders would be able to offer a wider price spread to LIPC on bids for lower priced grassfed beef sufficient to absorb the whole quantity tendered. However, under the new system, bids for grainfed beef are selected separately from those for "other" beef. □

**Foreign Agriculture**

**Vol. XVI No. 14**
**April, 1979**

**Bob Bergland,** Secretary of Agriculture

**Dale E. Hathaway,** Assistant Secretary for International Affairs and Commodity Programs.

**Thomas R. Hughes,** Administrator, Foreign Agriculture Service.

**Editorial Staff:**
Kay Owsley Patterson, Editor
Beverly J. Horsley, Assoc. Editor; G. H. Baker; Marcellus P. Murphy; Aubrey C. Robinson; Lynn A. Krawczyk; Isabel A. Smith.

**Advisory Board:** Richard A. Smith, Chairman; William F. Doering; Richard M. Kennedy; J. Don Looper; Larry N. Marton; Jimmy D. Minyard; Turner L. Oyloe; Steven Washenko.

The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Foreign Agriculture* has been approved by the Director, Office of Management and Budget, through June 30, 1979. Yearly subscription rate: $14.00 domestic, $17.50 foreign; single copies $1.20. Order from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Contents of this magazine may be reprinted freely. Use of commercial and trade names does not imply approval or constitute endorsement by USDA or Foreign Agricultural Service.

U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D C 20250

PENALTY FOR PRIVATE USE, $300
OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
AGR 101

U.S.MAIL

First Class

FA SERIA300SBISSDUE021R 1
SERIALS PROCESSING
XEROX UNIV MICROFILMS
300 N ZEEB RD
ANN ARBOR MI 48106

## Trade Teams—April

### U.S. Teams Overseas

| Date | Organization | Visiting |
|---|---|---|
| Mar. 8-Apr. 9 | Great Plains Wheat team | Morocco, Algeria, Egypt, Switzerland, Belgium, Netherlands, Singapore, Philippines, Japan. |
| Mar. 17-Apr. 7 | North Dakota Sunflower Council team | Italy, Switzerland, Czechoslovakia, West Germany France, Portugal. |
| Mar. 21-May 3 | U.S. Maid of Cotton and escorts | United Kingdom, Portugal, Spain, Italy, India, Hong Kong, Korea, Japan. |
| Mar. 23-Apr. 7 | Cotton Council International team | Korea, Japan, Taiwan, Hong Kong. |

### Foreign Trade Teams in the United States

| Date | Organization | Visiting |
|---|---|---|
| Mar. 18-Apr. 14 | Indian cottonseed crushers' team | New York, Tennessee, Ohio, Missouri, Illinois, Texas, Washington, D.C. |
| Mar. 30-Apr. 15 | Moroccan wheat mission | New York, Minnesota, Kansas, Texas, Illinois, Washington, D.C. |
| Apr. 3-20 | Japanese dairy management team | Illinois, Indiana, Virginia, New York, Wisconsin, Colorado. |
| Apr. 5-20 | Romanian wheat mission | New York, North Dakota, Minnesota, Illinois, Oklahoma, Texas. |
| Apr. 21-29 | Rice Council team | Texas, Louisiana, Arkansas, Tennessee. |
| In April | Portuguese feed manufacturers' team | Missouri, Kansas, Texas, Louisiana, Georgia, Washington, DC |

## International Meetings—April

| Date | Organization and location |
|---|---|
| 2-4 | U.S.-European Community consultations on wine trade, Washington, D.C. |
| 5-11 | FAO Committee on World Food Security, Rome. |
| 9-12 | UNCTAD sessions on meat, Rome. |
| 11 | Agribusiness export seminar, Dallas, Texas. |
| 12-14 | American Textile Manufacturers' Institute, annual meeting, White Sulphur Springs, West Virginia. |
| 16-24 | Signing of U.S.-Bulgarian Joint Statement of Agricultural Cooperation, Washington, D.C. |
| 18-26 | FAO Committee on Agriculture, Rome. |
| 19 | Agribusiness export seminar, San Francisco, California. |
| 23-25 | OECD Working Party 1 on Agricultural Policies, Paris. |
| 23-27 | World Congress on Water Resources, Mexico City. |
| 23-27 | UNCTAD Integrated Program for Commodities, Fourth Preparatory Meeting on Cotton, Geneva. |
| 23-May 4 | FAO Program and Finance Committee, Rome. |
| 26-27 | International Institute for Cotton, General Assembly, Bogota. |
| In April or May | OECD Ad hoc group on East-West Relations and Agriculture, Paris. |